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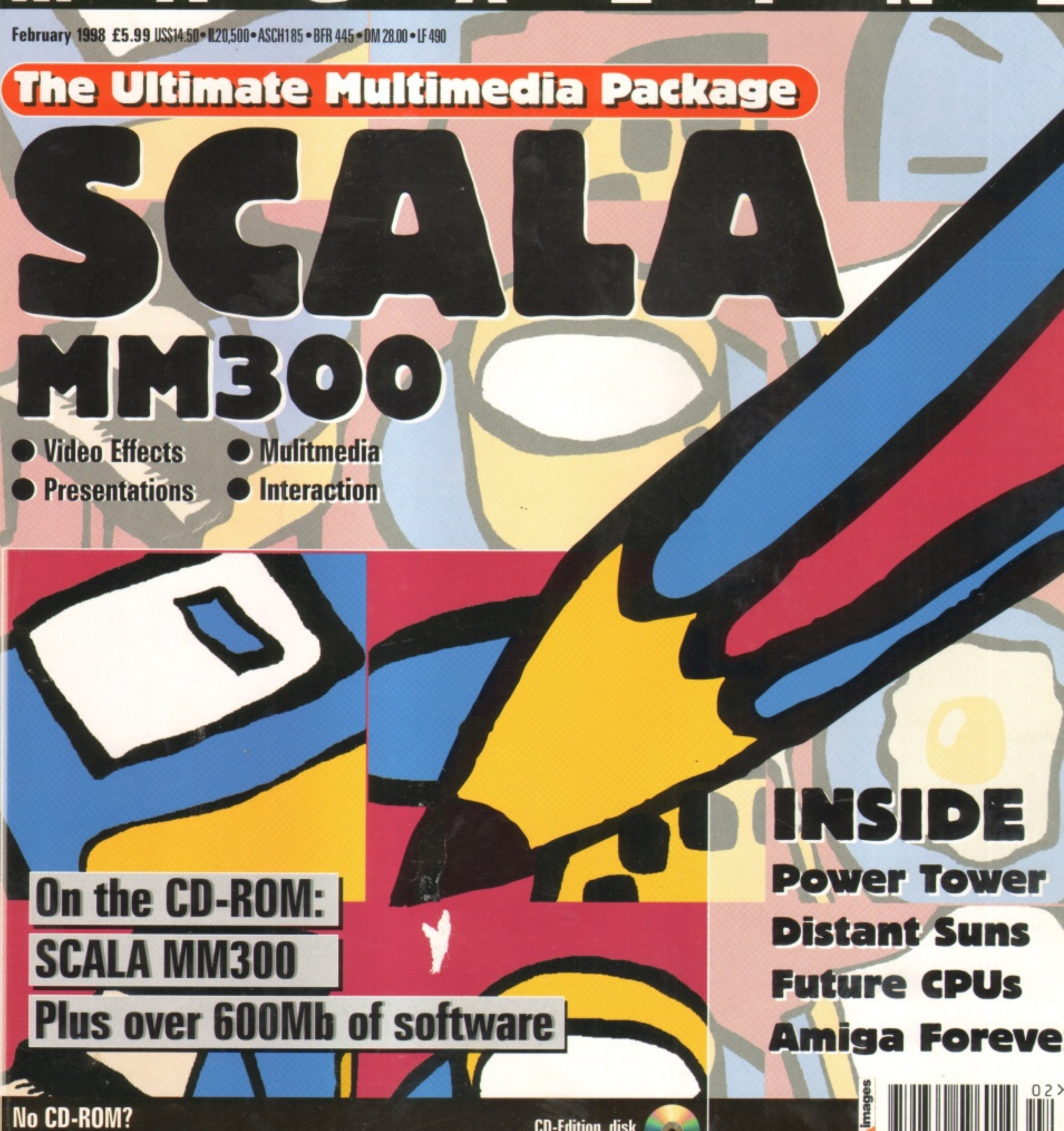
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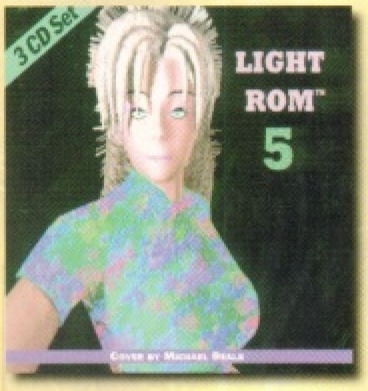
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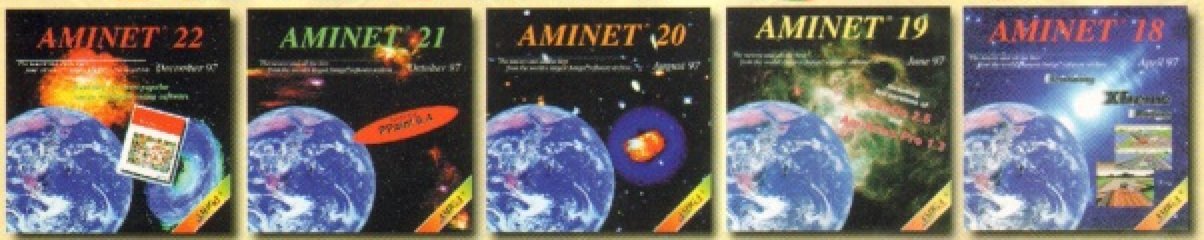
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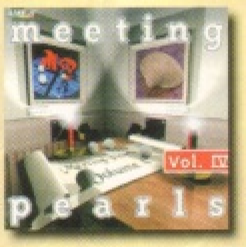


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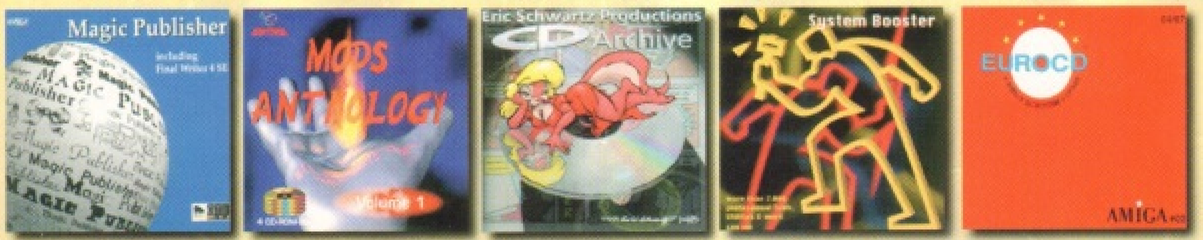
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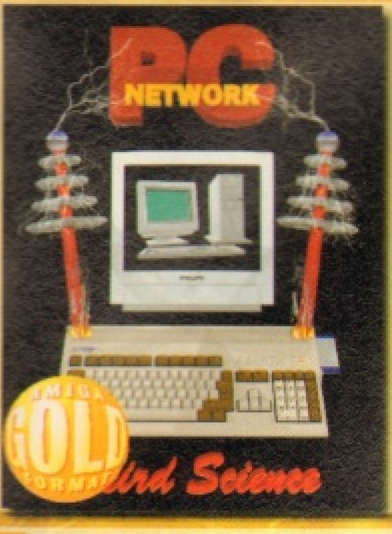
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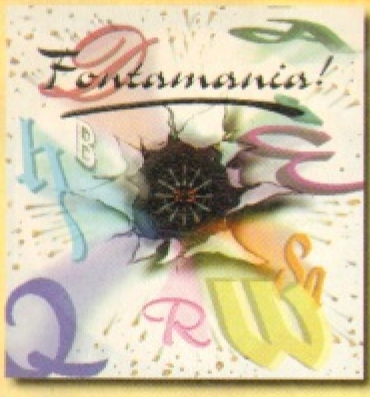
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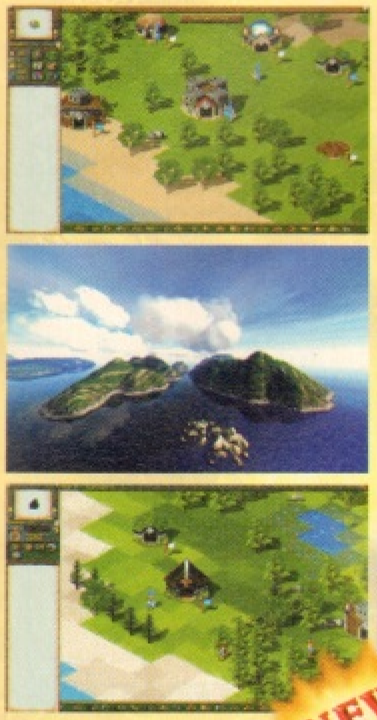
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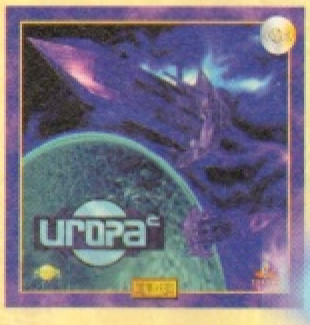


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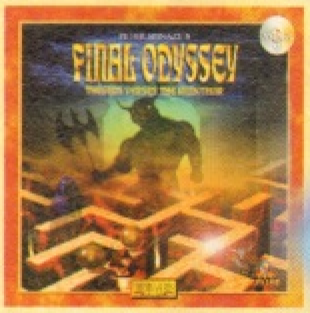
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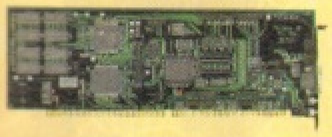
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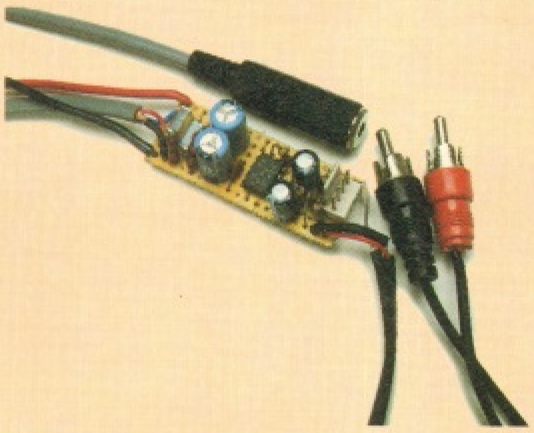
Editorial



The first new issue of 1998 sees a couple of previously mythical games turning up in impressively complete and final form: both Myst and OnEscapee have been entertaining us this month, and turning more than a few heads among our console-obsessed work-mates we share our offices with. It's satisfying proof that the Amiga scene is well and truly back in business, this time driven by people who really care about it. It's also been encouraging to see the flood of responses we've had from our reader survey in the last issue and on the web site. We'll be bringing you the results as soon as we can collate them. Now go and enjoy the mag!

Tony Horgan, Editor

DIY Scene



Feature



Feature





Personal Paint 6.6 76
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Cover disks



18 Scala MM300

The ultimate multimedia package comes your way on this month's cover disks and CD. CD-ROM users get a load of support files too. Find out just how powerful and versatile the system really is, starting on page 18.

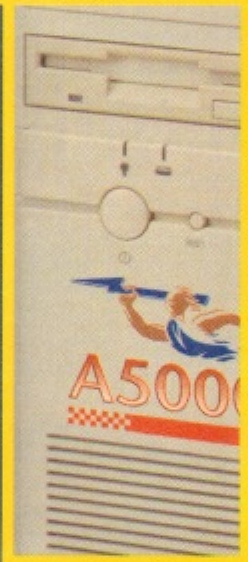
14 Super CD-ROM 19

This month's CD continues the trend of over 600Mb of the best Amiga software you can lay your hands on. As well as the full Scala system there's all kinds of tools, mods, graphics and demos to keep you entertained over the coming weeks. Threre's also a good healthy collection of web sites for you to browse without running up a penny on your phone bill!



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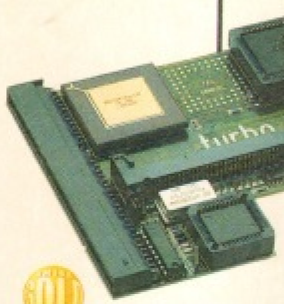
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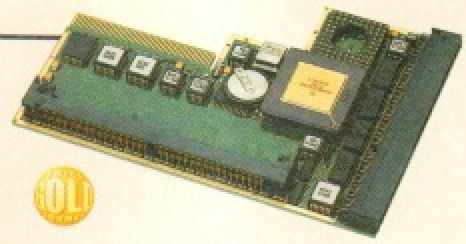
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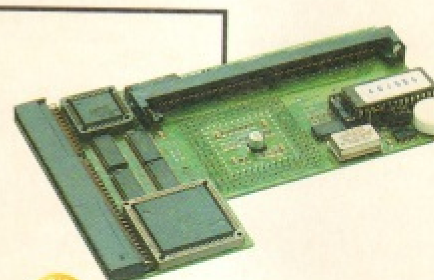
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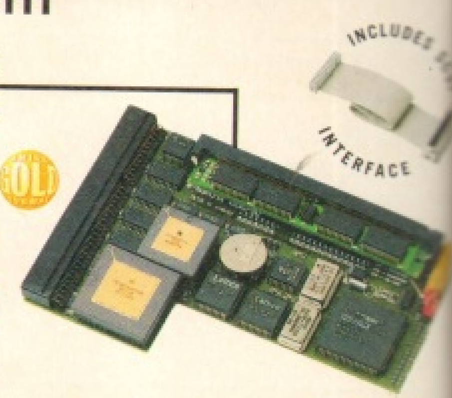
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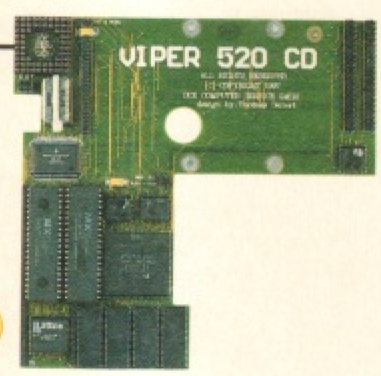
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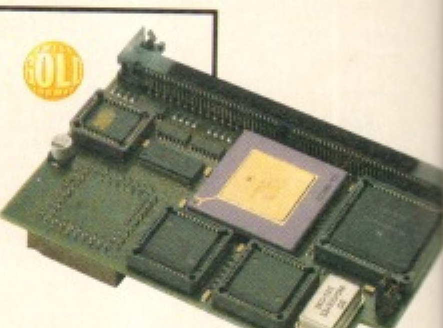


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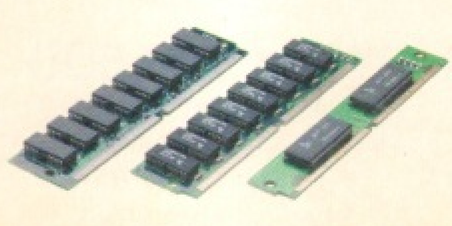
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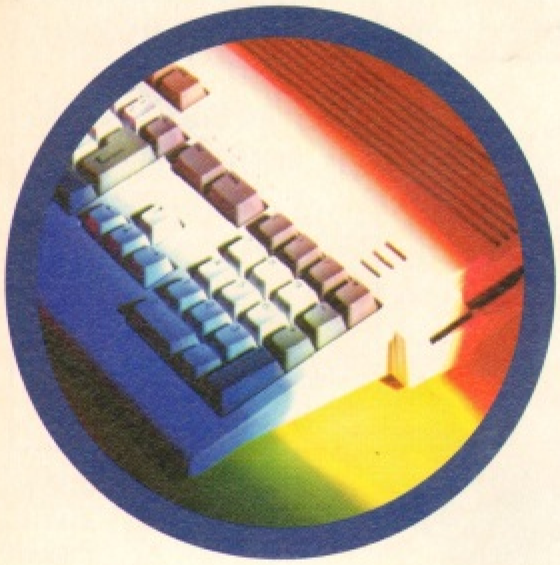
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Amiga Quakes!



▲ Bloody great monsters heading your way courtesy of id Software and ClickBoom!

S After months of rumours, it has happened - the Amiga has Quake. id Soft's legendary super Doom clone first appeared on the Amiga in early 1997 in the form of the Amiquake hack, an unofficial port which was made by a small group of Amiga coders after the source code to the game found it's way onto a cracker's bulletin board and made it's way around the internet. Back then legal threats from id Software stopped Amiquake pretty fast, but after months of negotiation, Canadian softco ClickBoom have acquired a license to sell the Amiga version commercially.

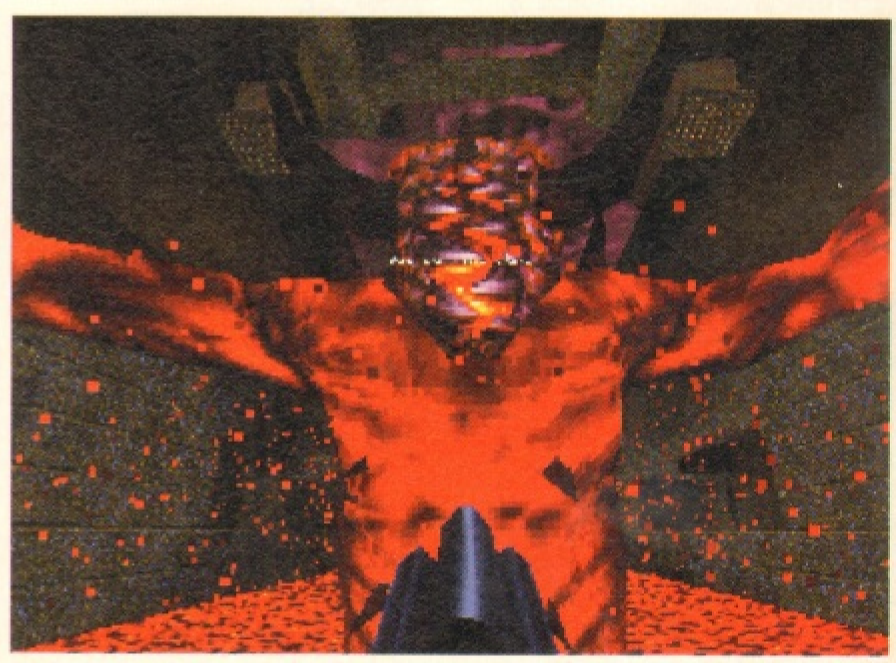
It is ironic that Clickboom acquired the rights to Quake after a small group of hackers was able to prove to the original software house that the Amiga was capable of running the software, as this is a very similar story to the one that lead to the publication of Amiga Myst, also by ClickBoom.

Quake, second choice amongst Amiga users responding to the ClickBoom wishlist. It is currently about the most popular and well known game on any computing system, and by getting an conversion for the Amiga is something of a coup. Currently, Quake only runs on the Sega Saturn, the PC and the Macintosh. Versions for the Nintendo 64 and Playstation are on again off again affairs that have been long awaited but still appear a way off; by contrast the Amiga version is already almost complete.

The Amiga version of Quake has all the features of the PC version. It should be possible to use a wide range of Quake add-ons, and network access has also been promised. Indeed we can expect to see Quake "clans" of Amiga users turning up on the internet based multi user Quakeworlds.

We'll have to wait and see how well the final version of Quake runs on the Amiga before we can tell you exactly how fast it will run on your system, but from what we have seen, it's going to be pretty good. Keeping in low resolution, it should be playable on an AGA machine with a 68040 or better accelerator, although clearly the better the processor the better it will run. We'll have to wait for the PowerPC version to see Quake running at its best, however.

A Quake demo was shown running on a PowerPC by Haage and Partner in Cologne, and it run at an impressive speed indeed. We have yet to have confirmation of this, but it seems likely that Clickboom will also be supporting the Permedia 2 based Cybervision and BlizzardvisionPPC graphics add-on cards. Quake is noted for using the OpenGL 3D graphics API, which is directly supported on the phase5 cards by the CyberGL implementation of the OpenGL standard. A 68060 Amiga with a graphics card will run runs Quake rather nicely, a PPC Amiga with the 3D card will be something to behold.



▲ The way I feel after doing the latest issue of CU...

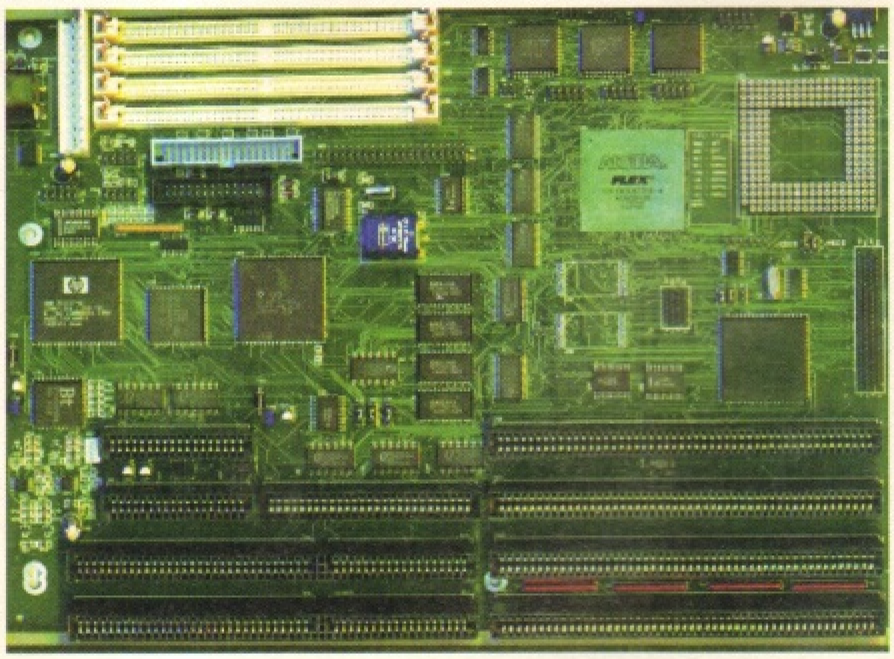
BoXeR Shows Us What It's Made Of

The specifications of the new BoXeR motherboard form Index Information have been announced. Based on the Amiga O.S. and chipset, the BoXeR is 100 per cent Amiga compatible and will allow systems within the price range of existing A1200s and A4000s to be built. The Baby AT motherboard will fit in any standard PC desktop or tower case, and carries 2Mb of Chip RAM, 4 72-pin SIMM sockets and a real-time clock. Also on the board are headers for printer, RGB video, AV, serial, audio, joystick and mouse. The specifications of Index's board, which will be distributed by Blittersoft, are looking very impressive. Here's a quick run-down:

- **Supports Motorola 68040 or 68060 at 25-75Mhz**
- **4x 72-pin SIMM sockets allow up to 2Gb Fast RAM**
- **2Mb, 32-bit wide Flash ROM providing Kickstart ROMs and resident modules, as well as allowing software and hardware updates.**
- **CD-ROM audio input connector and mixer**
- **Standard keyboard DIN connector allowing the use of PC or Amiga keyboards, with auto-detection.**
- **High-speed Chip memory read/write technology boosting memory access by up to 30 percent.**
- **Connector for processor upgrades, such as a PowerPC card - little more than a PPC chip on a card.**
- **16-bit ISA slots supporting low-cost peripherals, for example modems, ethernet and sound cards.**
- **CD-ROM filesystem in ROM, allowing booting straight from CDs.**

The BoXeR will be sold in three ways: As the heart of new "Black Box" Amiga systems from Blittersoft; as a standalone motherboard and through OEMs (Originating Equipment Manufacturers).

Prices have not yet been announced, but are expected to rival existing mid-range systems. It is yet to be seen how the board performs in reality, but we hope to test a pre-production model in the next issue. For more information, check out Blittersoft's website: Http://www.blittersoft.com.



POV Raytracer V3 Out, PPC Coming Soon

Persistence of Vision, the multi-platform public domain rendering software, has been updated. Persistence of Vision is a public domain raytracing program for several platforms, including the Amiga. Joel Newkirk, one of the Amiga programmers, has released the latest incarnation, version 3.02.

What Persistence of Vision lacks is a GUI: you have to stage your 3D scene by hand, although several helpful examples are included and if you're good with graph paper, it's a manageable task. What POV has in abundance are algorithmic textures to make your objects visually appealing—with so many authors working on the project, they've amassed quite a lot, to rival the included Imagine textures.

Newkirk also promises support for the Phase5 PowerUP cards in the near future, allowing much faster rendering times. There are presently versions available for all Amigas, even those without FPU units. To learn more about POV-Ray, check out www.wearefamily.com/newkirk.

Persistence of Vision

AMIGA®

Gamesmith Returns

Following the conclusion of US game developer Bithead Technologies' distribution contract with Oregon Research, they have decided to return to direct sales of their GameSmith game development system for the Amiga.

GameSmith is a set of tools which integrate with any Amiga C or assembly compiler to keep programmers from having to "reinvent the wheel" every time they sit down to code up a game, containing a number of useful routines commonly used in games programming. Bithead can be reached by phone on +1 719 683 5681 or e-mail (johne@webaccess.net).

News in Brief

56k modems to drop in price

A report by ARS (Associated Research Services) predicts that costs of 56k modems will plummet following an agreement for a 56k standard reached on December 4. The meeting of the Industry Association in Orlando, Florida agreed to the need for a common standard because some ISPs only support either K56flex or x2 technology, and modem sales have suffered as a result. A preliminary standard for 56k is likely to be decided in January at a meeting of the International Telecommunications Union.

RC5 goes PPC

The PowerPC version of the Amiga RC-64 client is now available, boosting performance over the 68k version by a substantial margin. By utilising the PowerPC, the Amiga RC5-64 team hopes to improve on its position in the rankings - currently 7th out of 12,000 competing teams. To get your hands on the new PPC client, or to join in the RSA secret key challenge, visit the Amiga RC5 Team Effort homepage at: Http://www.cistron.nl/~ttavoly/rc5

User Group Network formed

Amiga Inc. and Amiga.org have announced the formation of the Amiga User Group Network, or "UGN" for short.

The internet-based system will act as a central point for news originating from Amiga, Inc. and will be broadcast to all of the network's members by e-mail.

To join the UGN, visit: Http://www.amiga.org/usergroups and fill in the provided form. More information can also be found at that site.

A4000 Towers at Knock-Down Prices

White Knight are now distributing low-cost A4000T systems in various configurations.

Available with or without processor, hard disk or memory, White Knight believe they provide "maximum flexibility at the lowest cost."

The basic A4000T is available for £1049 inclusive of VAT, and can be configured with a Cyberstorm Mk3 or PPC accelerator.

White Knight, the UK's largest supplier of PowerUp cards, can be contacted on (01920) 822 321.

News in Brief

Randomize Amiga Products

Amiga International has licensed Randomize to produce a range of Amiga promotional items. Starting with a selection of T-shirts sporting the Amiga logo and "Powered by Amiga" slogan, the company hopes to build up a range of products to promote your favourite machine.

For more information on current and forthcoming products, visit the Randomize website at Http://www.randomize.com

Want an Oxypatcher?

Oxypatcher will shortly be available in the UK from Weird Science, and is expected to retail for £14.95. If you're running an '040 or '060 system, and you aren't utilising a Phase5 accelerator card with CyberPatcher software, call Weird Science now on (01162) 463800 to order your copy!

Ultra Cheap CD ROMs

Power Computing and Wizard Developments both have cheap PCMCIA CD-ROM drives on offer. Power's is a two speed external SCSI CD-ROM drive with case, power supply and a Squirrel Interface, and is selling for a bargain £79.95. Wizard Development's £80 CD-ROM drive is the Amiga Technologies Q-Drive, a 4 speed unit which also connects to the PCMCIA unit. Wizard only have a small number of these left, so snap one up while you can.

Both of these two units are complete and ready to go and will work with any A1200 or A600. Contact Power Computing on +44 (0)1234 851500, www.powerc.com or Wizard Developments on +44 (0)181 303 1800. Wizard also have a shiny new website with on-line ordering, www.wizard-d.demon.co.uk.

LZX goes free!

Jonathan Forbes, the author of LZX, has released a generic keyfile in response to popular appeal. He points out that this shouldn't be taken as indication that he is returning to development, it is just his present to the Amiga community. LZX is the most powerful compression system available and has been responsible for cramming more data on CU Amiga coverdisks than any other archiver. Cheers, Jonathan!. LZX users can now download and LZX keyfile from the aminet in util/arc.

Power A5000 grows!

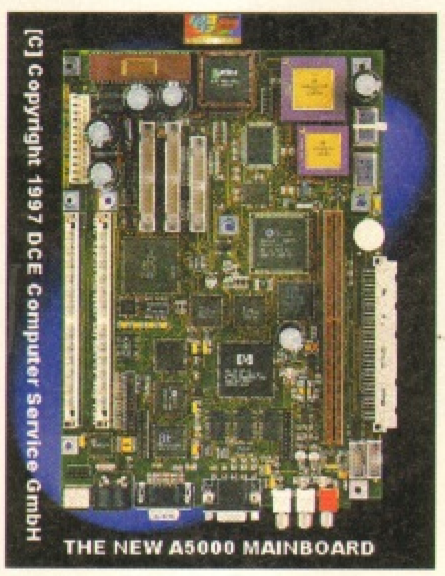
The Power A5000 desktop computer from DCE in Germany and the UK's Power computing is undergoing a minor change of specification, and interested readers will be glad to know that the changes will mean more power but not more money.

The A5000 is a being launched as a mid price machine, somewhere between the A4000 and the A1200, but in reality it is closer to the A4000 in spec while being closer to the A1200 in cost.

The board is designed to work as much as possible with industry standard parts without bringing in any of the larger changes being discussed by Micronik and Index. The idea is that it will offer 100% of the functionality of the Amiga, but at a much lower price. It will be fit into a standard PC style ATX case, use PC keyboards, and PC monitors via a scan doubler. An RF adaptor for TV use will be an option. The board will come with four Zorro II slots, two buffered IDE interfaces, and a flash EPROM for ROM updates. There will also be a bus slot for an Mpeg decoder card.



▲ An A5000 up and running. Bring in the Clones!



Originally the A5000 was going to be released as a 68030 system, as pictured here. However several potential suppliers of 68040 processors have turned up, and it is now looking almost certain that the A5000 will be fitted with one of these, without any significant rise in the price to the end user.

There had originally been concerns from some quarters that as appealing as it may seem in other areas, the issue of future upgradeability to PPC had to be resolved. Although no decision has been made at time of going to press, it now looks almost certain that the A5000 will be equipped for PPC usage in some way.

The A5000, whether equipped with an '030 or '040 processor, should be finalised in the next couple of months. Expect further news, including full pricing, then.

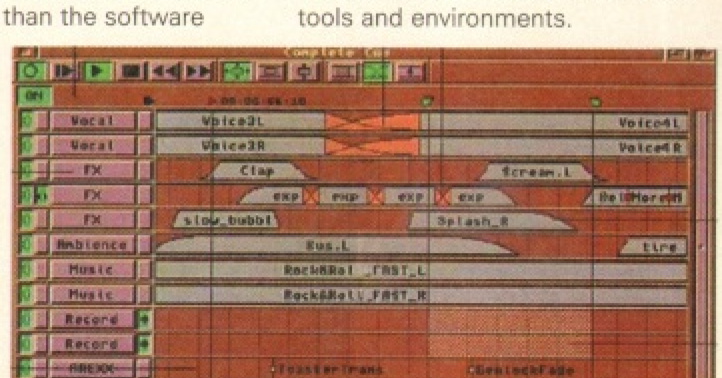
Contact Power Computing on +44 (0)1234 851500 or check out www.powerc.com and www.dce-com.de.

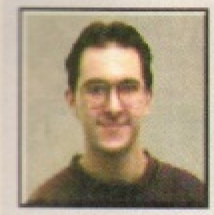
Studio 16 Secrets Revealed

Sunrize users are getting some support again. Before the gold rush of AHI-compatible 16-bit sound cards came, there was a single word in serious 16-bit audio on the Amiga: the 8-track Sunrize AD516 (or AD1012 for those on a 4-track budget). Some still regard Sunrize's Studio 16 software as the ultimate word in audio editing, but Sunrize went out of business without sharing much of its developer information.

Kenneth Nilsen of Digital Surface has taken some significant steps forward to correct this problem. He has assembled free archives of new scripts and tools for Studio 16 cards, including an AIFF converter, as well as an on-line mailing list for Studio 16 enthusiasts. Write to majordomo@thule.no with "subscribe studio16" in the body to join.

As of yet, nobody has been able to dig deeper than the software layer of these boards to determine how to write an AHI driver, which would enable the Sunrize cards to be used with the ever-growing list of applications, tools, and games taking advantage of AHI's flexibility. But this software breakthrough allows home and professional audio experimenters to share files better between Studio 16 and other audio tools and environments.



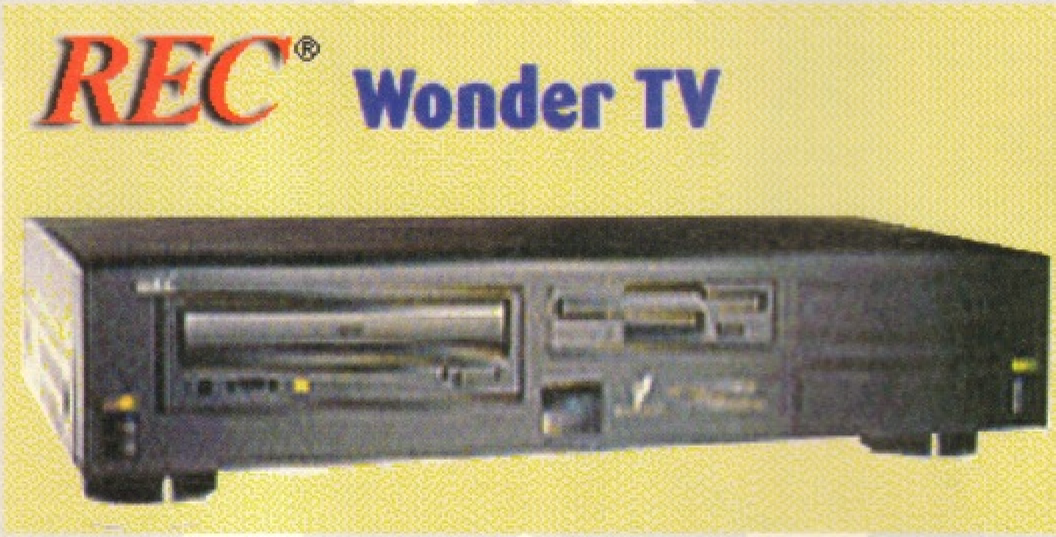


Stateside News

by Jason Compton: Editor in Chief of Amiga Report Magazine

Licensing Score

For those keeping score, Amiga International has released its list of official Amiga licensees for existing Amiga technology (or technology based around the Amiga design.) North America is represented in most sectors currently listed by AI.



While there are no companies doing A1200 tower rebuilds (such as Micronik of Germany), Nova Sector Engineering of Michigan is attempting to market A4000T-based custom workstations to the super-high-end Amiga market. The specs of the machines are impressive – the top of the line in Amiga hardware – but the prices reflect the "upscale" marketing approach the company is taking.

As has been expected for some time, QuikPak's Amiga license has been amicably renewed. QuikPak has been responsible for A4000T manufacture since Escom days, and took over distribution responsibilities in early 1996. Paxtron, a specialist in Amiga componentry and surplus inventory, has been rewarded for their hard work with a parts distribution license.

Software Hut of the US joins an elite group of licensed manufacturer/distributors of OS 3.1, and North American licensees currently represent fully one-third of the new "merchandise" licensees for t-shirts and other Amiga-badged sundries.

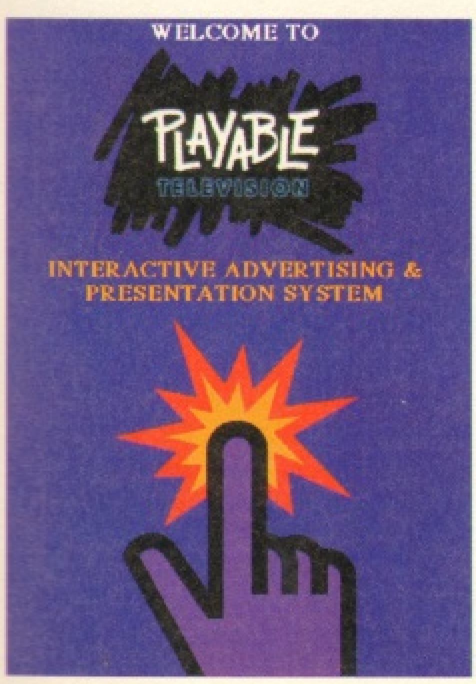
AI's license list is interesting in that it mentions "Future License contracts in sight," which one could take to mean that they are rather certain about them if they're publicly discussing it.

Among those listed is REC, the US-based manufacturers of the Wonder Amiga clone for the Chinese market, and a company only known as "Providential Technologies" who are apparently developing a new MPEG add-on for the CD32. Watch for more information on Providential in the future.

Dark Days In Oregon

Oregon Research, HiSoft's North American distributor, has apparently fallen on some difficult times. The company's president, Bob Luneski, has faced a staff exodus, falling sales and increasing debts. In a recent letter to customers and the market in general, he apologized for the company's recent poor service and promised a turnaround, provided that customers would respond to his call for help and generally reduced prices across the board. At the same time, Oregon Research cancelled the last of its Atari support. The company is responsible for Termite and Termite TCP, and has published other Amiga titles in the past.

For more information, Oregon Research can be reached at: www.orres.com.



Playing With TV

Playable TV of Pasadena, California is looking to turn the Amiga's powerful video capabilities into a multimedia revolution. The company is marketing Toaster/Flyer-based Amigas to companies looking for exciting, dynamic video presentations, which in this day and age is most anybody.

While not specifically marketed as Amiga-based, it is clear enough from reading their materials that Amiga technology is at the core of their systems. Their system boasts the ability to be configured remotely, to pull video from virtually any source, and rapidly interweave it with text, music, and special effects. While high-end, this is the sort of solution companies who can't afford in-house video specialists could be looking for. To read more about Playable TV, visit them at: www.playabletv.com.

Advertisers Index

CD-ROM Super CD-ROM 19



CU Amiga's Super CD-ROM 19 (or CUCD19 for short) is once again packed full of new software and all manner of files to keep you and your Amiga busy for the month ahead. Still not got a CD drive? Just look at what you're missing!

How much of what?

It's easy to miss where the real contents of a CUCD lies so here's a list of how much data lies in each directory. Headinling the CD is Scala MM300 (see page 18 for a walk-through guide). Aside from that there's more than enough to keep anyone going for the next month, whether it's graphics, offline web browsing, music, programming, games, or simply tinkering with the many and varied utilities and tools to be found on the disc.

- Scala MM300.................21Mb
- OpenBSD........................54Mb
- CDsupport........................63Mb
- System files 13Mb
- CD-ROM 12Mb
- Demos 13Mb
- Games 45Mb
- Graphics.........................38Mb
- Magazine........................28Mb
- Online 114Mb
- Programming 72Mb
- Readers 32Mb
- Sound 32Mb
- Utilities.............................9Mb
- WWW 56Mb

Making the most of CUCD19

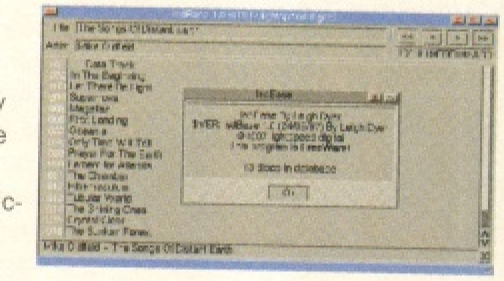
All CUCDs are designed to be used whether you boot from the CD or your normal Workbench. If you boot from the CD, everything is setup and ready to go. If you want to access the CD from your Workbench, you should first run InitCD.

This sets up various assigns and paths needed by programs on the CD, so if you don't do it, things won't work. It doesn't make any changes to your system, or write any files to your hard drive, all changes are temporary and can be reversed by running InitCD again.

Your own custom CD

In the past you had to use whatever file viewers we set up on the CD. since these had to work with all Amigas they were quite limited. From CUCD12 we decided to allow you to specify how the CD should work on your Amiga and included CDPrefs in the CDSupport drawer.



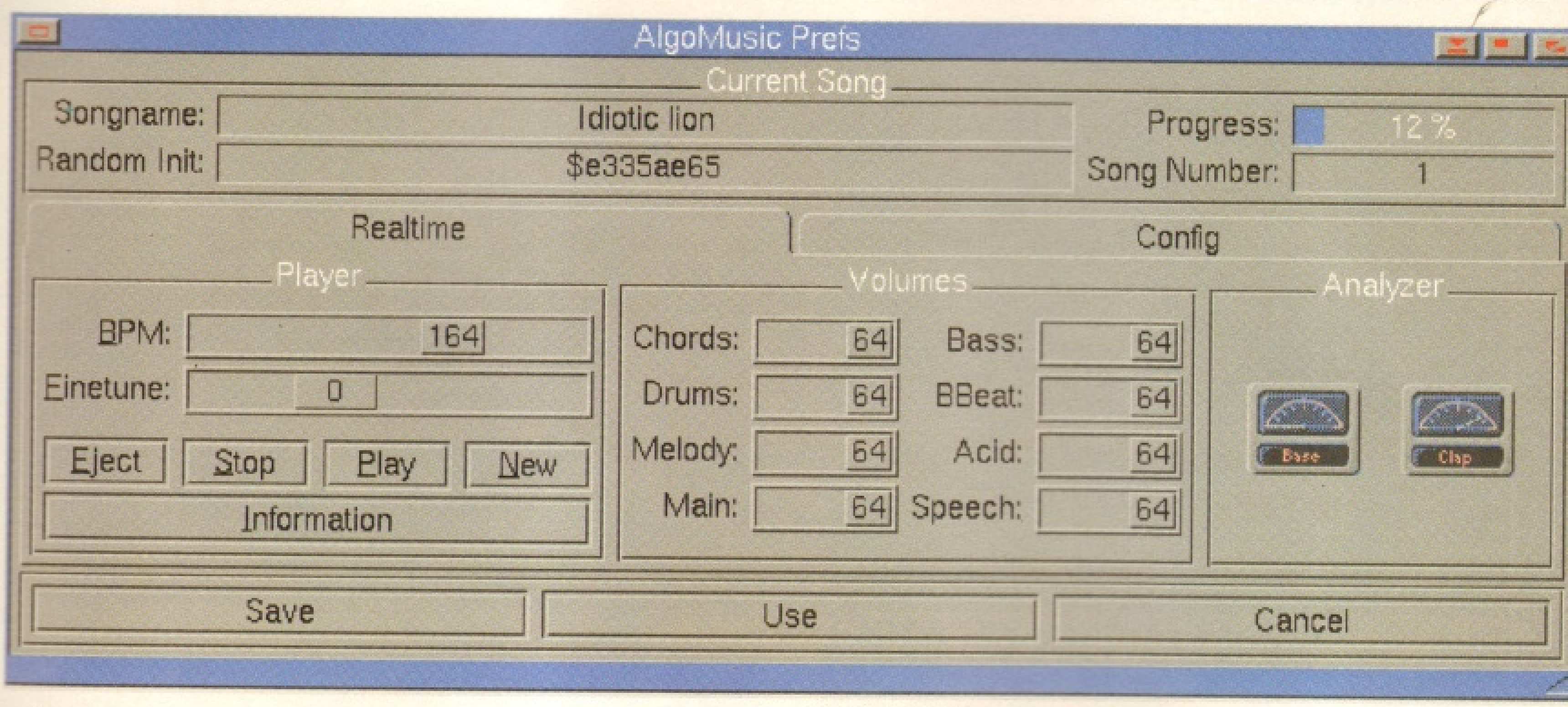


If you have never run this before you should be asked if you want to when you run InitCD. CDPrefs lets you specify which program you want to use to handle each type of file, graphics card users can view pictures in full 24 bit colour, ProjectXG users can listen to midi files through their midi card and people with sound cards can listen to mods with an AHI module player. It also means we were able to provided different defaults for Workbench 2.x users.

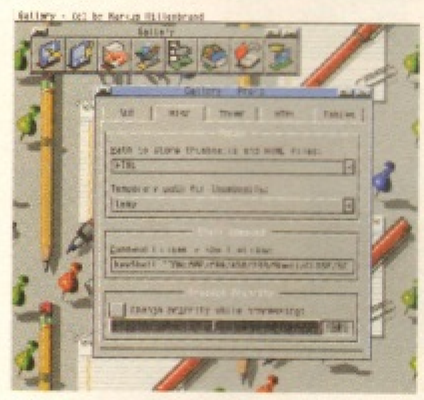
Once you have run CDPrefs, your setting will be saved to your hard drive and will be used every time you use this CD or any other CUCD.

Some people had problems with the original use of IDer, partly through a lack of understanding of how it worked and partly through a lack of explanation from us. All icons now use CUCDfile as their default tool, and the previous IDer problems should be a thing of the past. If you do have any problems, make sure you have run InitCD.

Highlights of CUCD19



▲ Let your Amiga entertain you with sweet music as you settle back and relax. AlgoMusic is a clever little program which automatically composes and plays music in realtime. All you have to do is set a few preferences or even just go with the defaults. Don't expect anything to rival the classic composers, but it does a good line in happy hardcore (if that's possible).



◀ Here's a novel use of HTML: Gallery makes up thumbnail reference pages for all of your picture files. You can then peruse and pick them off at will using a web browser. This has the advantage that you don't need to remember the often obscure filenames that are given to pictures when it comes to having to dig one out for a project.

In addition to the main goodies, like Scala MM300 and OpenBSD, the CUCD drawer contains almost 500Mb of high quality material. These are a few highlights, but by no means all there is. The more time you spend looking through the CD, the more you will find.

Sound/AlgoMusic

Not only do we have the latest version of this random song creator, but this one comes with a superb set of extra samples for even better results.

Utilities/Birdie

Following on from last month's Workbench 2000 feature, here is another program to radically alter the look of your Workbench. Birdie lets you use graphics as patterns for your window borders etc. With the appropriate choice of pictures the results can be quite stunning.

Sound/MrMPEG

MPEGA is a superb MP3 audio player, but its command line options can be a bit daunting. MrMPEG provides a clean interface to MPEGA. As well as controlling the options, you can create and save play lists for future use.

Graphics/Gallery

Anyone with a fairly large collection of pictures will know what it's like trying to find the one picture you need. Gallery creates index pages of your pictures in HTML. By using HTML they can be viewed in any browser, and transferred to any other computer too.

CDROM/Isdbase

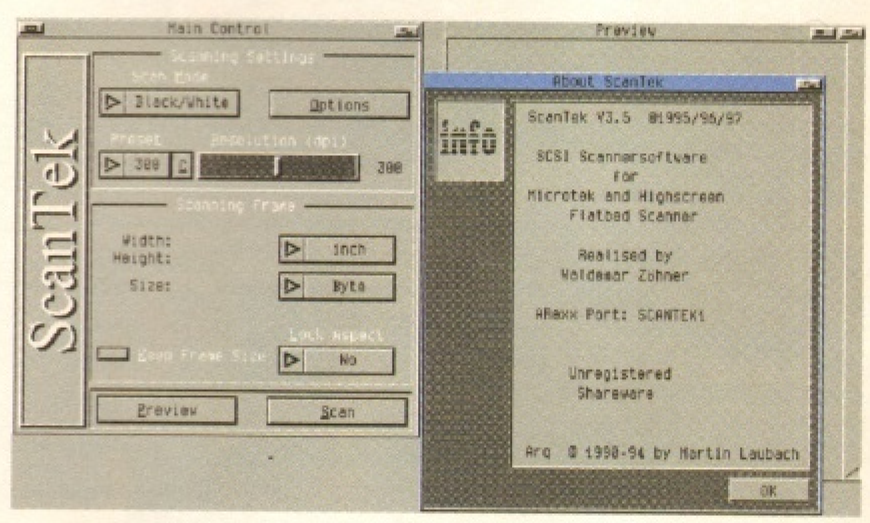
The CDID collection on this CUCD has almost 6000 CDs. Unless you install every one onto your hard drive, it can be very time consuming finding the one you want. Isdbase is a database that makes handling your CDID collection so much easier.

Utilities/Scion

Scion is the Amiga's leading genealogy program. It has been developed over several years, and contains a wide range of powerful features, enhanced by a comprehensive Arexx port. If you've ever wondered about tracing your family tree, this is the program you need.

Graphics/UltraConv

As the name implies, this is a graphics conversion program, but there's more. UltraConv handles a wide range of graphics formats, and can convert single files or whole directories. As well as conversion, it also provides a number of image processing features, so you can alter the images at the same time as converting them.

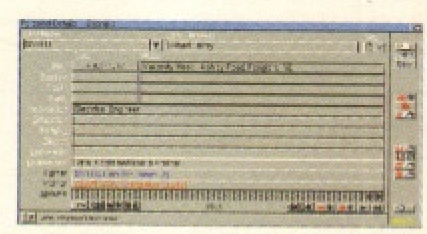


Graphics/ScanTek

ScanTek is a shareware driver for the Mustek and Highscreen range of SCSI flatbed scanners. These models are now available at very low prices and this evaluation version of ScanTek means you can check out both the software and the scanner before registering.

Online/RFCs

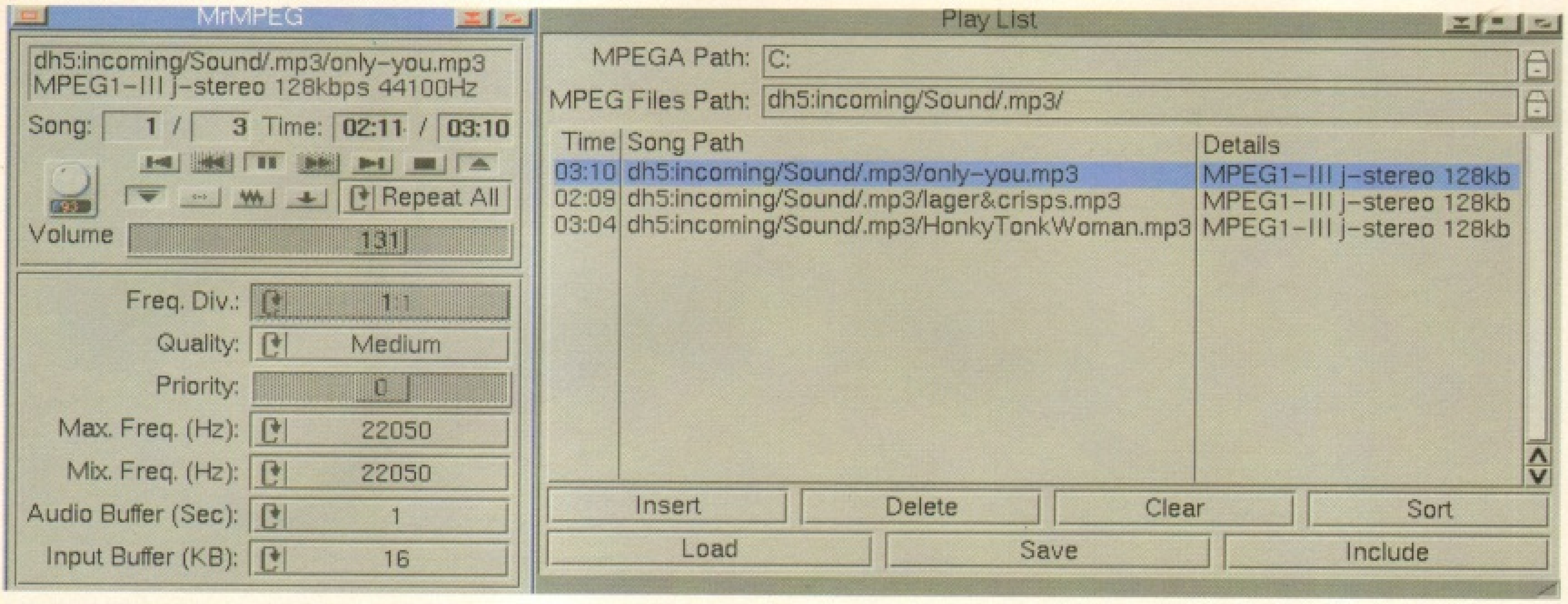
RFCs are the "rulebook" of the Internet. They were icncuded on a CUCD a year ago, but there have been many updates since then.



▲ If genealogy's your game, take a look at Scion. It's a genealogy database type affair with lots of powerful features, including support for ARexx. Just the thing for tracing your family tree.

This directory contains the full set of current RFCs, useful for anyone with an interest in how the Internet works.

What's on this month's CU Amiga CD?



Scala MM300: The full version of this superb multimedia authoring package, so good that even IBM chose to use it for their video wall displays. The CD version also includes a large amount of support files that we couldn't possible have included on the floppy disk edition. If you don't have a CD drive yet, how many more reasons do you need to upgrade?

OpenBSD: There has been a great deal of demand for a good Unix implementation on a CUCD, and OpenBSD is the most up to date available. This is the full installation, in archived form. This is not for the faint-hearted. You don't run Unix under AmigaOS in the way that you can with, say, ShapeShifter or PC-Task. Unix will take over your machine, and you need a separate hard drive partition to boot from.

CDSupport: This contains various support files, such as mod players, anim players, GMPlay, MUI and ClassAct. Most importantly, this is where the CDPrefs program lives. With this you can customise your CUCD to launch your choice of program for each type of file.

CUCD: The CUCD drawer contains most of the CD contents, here is a selection of what each drawer holds.

CDROM: We have an updated collection of CDIDs, now with almost 6000 CDs, plus Isdbase, to create a searchable database from all your CDIDs. There's a demo of the new version of the MasterISO CD mastering package and the latest IDE-fix too.

Demos: A selection of whirly, flashy noisy stuff, perfect for people who like whirly, flashy noisy stuff. It includes the classic Andromeda Nexus 7 demo.

Games: A good selection of games including some more levels for Diamond Caves that was on the December cover disks. Following the problems some people have had with the previous copy of TFX, we've put the whole thing on this CD, together with a fixed script for transferring the files via a PC for those of you who have yet to upgrade your Amiga to CD.

There's an updated Gloom 3 demo, since the archive we received for the December issue had some files missing, making it unusable.

We have also included a massive collection of hard drive installers by the prolific Jean-François Fabre.

Graphics: The latest version of the Picasso96 and CyberGraphX3 graphics card software are here, together with several support programs designed to make life with a graphics card even more satisfying. PCD Manager is, surprisingly enough, a program for managing your PhotoCD collection. UltraConv and XLabProcess are image processing and conversion programs, and we there's some driver software for flatbed scanners to get the images into your Amiga in the first place.

Magazine: Full source code for the C tutorial and a large amount of support material and programs for SoundLab.

Online: The latest for Netheads, plus a selection of news postings so the modemless can see what some of the fuss is all about. There's also a complete archive of last month's postings to the CU Amiga mailing list. See who said what and why they are now regretting it :) There is also an update to last year's RFC collection, the full, current set of Internet standards.

Previews: We had hoped for a playable preview of Myst, but it wasn't available in time. To keep you going until next month, here are some screenshots.

Programming: The newest ClassAct and ixemul updates, plus a large archive from the "Library of Efficient Datatypes and Algorithms", containing useful material for those of you following the C tutorial.

Readers: Another selection of mods, pictures, games and utility programs, sent in by you. Next month it could be you...

Sound: Everything you need to make a noise with your Amiga. There's samples, MIDI programs, trackers, the latest Play16, a GUI for MPEGA and a brand new AlgoMusic, complete with an enhanced sample set.

Utilities: As usual, this drawer contains a wide variety of programs to make your Amiga so much easier, faster or more pleasant to use. There's in-depth information on hardware and software, a program to really change the look of your Workbench and the Scion geneaology program.

WWW: Another collection of WWW sites, together with a choice of browser to view them. Have a look at this sample of the sort of information that is available on the WWW, including the world famous CU Online site!

Disk doesn't load?

If your CD does not load contact DiskXpress on 01451 810788. If they advise that the CD is faulty send it along with a SAE to: CU Amiga Magazine Disk Returns, DiskXpress, 7 Willow Court, Bourton Industrial Park, Bourton on the water, Gloucestershire GL54 2HQ.

Please note that some CDs will not autoboot on systems other than CD32s, so try loading it from Workbench first. CUCDs will work with almost all Amiga configurations and filesystems. However, we recommend older CD filesystems be replaced where possible. A non-working program is *not* an indication of a faulty CD!

Eyetech's Sale Specials: 4-speed CDROM system - £99.95!!!; A1200 Magic Packs w/£180 worth of vouchers - £249.95; EZ-Tower A1200 systems from £349.95; EZ-IDE s/w from £12.50; 030 accel's w/4MB from £79.95, w/8MB from £89.95; 39 Mips '060/50MHz £278.95; A600 33MHz '030/MMU/FPU/standard simm to 32MB - £99.95 -- or with 4MB +£7 ; with 8MB +£14; LS120 £99.95; (Price down, New Product)

Q. What fits in a floppy bay and reads & writes 120 MB PC & Amiga cartridges AND 720KB & 1.44 MB PC diskettes?

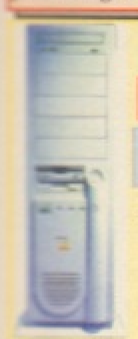
A.The All-New LS120 ATAPI drive from Eyetech



- 120MB backup and PC 1.44MB diskette compatibility in one unit
- Bare Drive just £99.95 .120MB cartridges just £14.95/1 or £34.95/3
- EZ-IDE universal EIDE driver software is required - 50% discount when ordered with the LS120 or 4-device buffered interface . Upgrades available from Eyetech-supplied IDE-fix available - see below right.

HEALTH WARNING *"A buffered IDE interface is essential to avoid overloading of the A1200's IDE port when adding extra devices"- John Kennedy - AF - July 1997*

Don't be tempted to skimp. Fit an Eyetech 4-way IDE/ATAPI 3-chip buffered expander to preserve your Amiga's Health. *The original and best - Just £39.95.* Now with 50% discount off EZ-IDE software



The Mk2 EZ-TOWER - from just £99.95

See our full-page EZ-Tower feature advert in this magazine

... Or buy a CDPlus unit (below) and get an EZ-Tower for just £99.95*
(*as an alternative to the regular CDPlus case)

The Top-Rated Eyetech *CDPlus* for the A1200



The CDPlus and SyQuest EZ135 drives. The IDE Zip Drive is the same size as the EZ135

- 8-, 16- or 24-speed external CDROM unit in quality, CE-approved case with heavy duty PSU
- Leaves trapdoor free for accelerators / memory expansion and the PCMCIA slot free for digitisers, modems, samplers etc
- Option to add additional HD's, CDRoms, LS120s, SyQuests, *IDE Zips*, Jazs, SyJets, ATAPI tape streamers etc powered from the CDPlus unit
- Comes with special Eyetech *'060-compatible* Mk2 4-device EIDE buffered interface board - easily fitted in minutes with no cutting/drilling (Note that IDE CDROMS *must never* be directly connected to the A1200 without a buffered interface - ask any qualified electronics engineer!)
- Gold plated audio phono sockets at rear (CD+ only) and front panel headphone socket and volume control

Amazing Value - Prices down again!

4-Speed - £99.95 see right
8-Speed - £148.95
16-Speed - £169.95
24-Speed - £179.95

Xmas '97 Special - limited availability
4-SPEED A1200 CDROM SYSTEM FOR JUST £99.95!



Includes 4-speed CDROM, metal case, 4-device buffered interface, PC-type power supply & CDROM power cable, 40-way and 44-way IDE cables and instructions

Considering a PowerStation?

The CDPlus is now available with a, 230W, CE-approved, PC MiniTower* or Desktop* case (which can also power your A1200) - *for only £20 extra*
(*as an alternative to the regular CDPlus case)



Amiga User International - *97%* *"... It all worked faultlessly..."*
Amiga Format - *96%* *"... An absolutely superb bit of kit.."*
Amiga Shopper - *90%* *"... This is a quality product..."*



Amiga 1200 Magic Packs

- Direct to Eyetech from Amiga International Inc.

- Full UK specification with Kickstart 3.1/Workbench 3.1 disks and manuals, UK psu, mouse, mousemat and TV lead.
- Fantastic software bundle including Wordworth 4SE,Turbocalc 3.5, Datastore 1.1 Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, Pinball Mania and Whizz
- Three very special Eyetech bundles designed to meet every need and budget - all with 12 months return-to-base warranty

The Eyetech Starter Pack *Just £249.95*

- Diskette pack as above with 2MB graphics/program memory and built in hard drive interface. Hard drive and memory expansion recommended for non-games use.
- *Over £180 worth of discount vouchers for future hard drive, CDROM, accelerator/ memory and EZ-Tower upgrades from Eyetech*

The Eyetech Productivity Pack *Just £299.95*

- As above with 2MB graphics/program memory and *170MB hard drive* . Just switch on & use straight from the box!
- Scala MM300 preinstalled on the hard disk (needs 4MB memory expansion to run properly)
- *Over £180 worth of discount vouchers for future hard drive, CDROM, accelerator/ memory and EZ-Tower upgrades from Eyetech*

The Eyetech *EZ-Tower* Professional Pack *Just £799.95*

- Full *EZ-Tower* with *EZ-Key* keyboard adapter, ***Windows95 keyboard,*** and ***250W psu,*** with software and manuals as above and with mouse, mousemat & TV lead. (No A1200 k/b or psu
- *25MHz '040* processor (approx 19 Mips) with MMU & FPU and *16MB* of program memory.
- *1.7GB TowerDrive* with Workbench 3.1 and shareware utilities preinstalled
- *8-speed CDROM* including the *Eyetech 4-device buffered interface* and *fully registered CDROM/hard drive/IDE Zip drive/LS120 driver software preinstalled*
- *880KB floppy drive* including faceplate
- Fully installed and tested together with all relevant cables and manuals

AND the option to have fitted:

- An *LS120* 720KB/1.44MB/120MB drive/cable for *just £99.95 extra* (at time of purchase only)

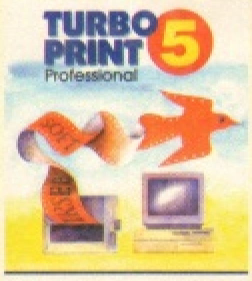
EZ-IDE

New! Only available from Eyetech - *the* Amiga IDE ATAPI peripheral specialists. Probably the only hard drive/CDROM/LS120/ZIP/SyQuest s/w you'll ever need

- Supports LS120, Zip, Jaz, SyQuest and other IDE/ATAPI removable cartridge drives AUTOMATICALLY. Cartridges just appear on the Workbench when inserted and disappear when ejected! Eyetech's IDE ZipPrep Tools are also included.
- Optimises IDE hard drive performance automatically. Eliminates 'MaxTransfer' nightmares.
- Extensive CDROM support including multidisk changers, direct digital audio transfer, CD32 emulation, high performance filesystem support for Amiga, Mac and PC CDs.
- Ready-to-use as shipped. No sending away to foriegn parts for registration codes as with the 'commercial' versions of IDE-fix97 and Atapi Pn'P.

EZ-IDE s/w	£34.9
Upgrade from Eyetech-supplied* IDE-*fix*	£12.5
With* 4-dev i/f, CDPlus, IDE Zip or LS120	£17.5
Competitive u/grade*	£24.9

**Trade-in & proof of purchase required*



BirseeSoft for the AMIGA

- The most comptrehensive, fastest printing system for all WB2.x+ Amigas
- Supports the latest printers from Epson, Canon, HP

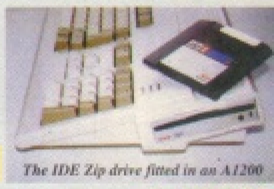
Introductory Price **£39.95**

The Amazing Iomega *IDE* Zip Drive

Another first from Eyetech

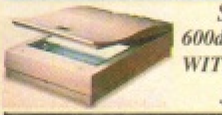
- *Use a different cartridge for each application or family member*
- *Ideal for transferring multimedia data between Amigas and/or other platforms*
- ***Fits in any Amiga/desktop/minitower floppy drive bay or in external case***

CARTRIDGE CHANGES AUTOMATICALLY RECOGNISED



The IDE Zip drive fitted in an A1200

Bare IDE Zip drive *(inc Eyetech V2.0 Ziptools)* - **Just £99.95**
EZ-IDE (or equiv) software required - **Just £17.50 with drive**
100MB Zip cartridges just £14.95/1 or £34.95/3 (*A600/1200 buffered interface needed)



STOP PRESS! - While stocks last
600dpi 1-pass, 24-bit, SCSI A4 flatbed scanner WITH ScanQuix 3 Amiga scanner software
Just £199.95 (inc PC & Mac s/w)

A1200 *TowerDrives*

TowerDrives are only available from Eyetech



The A1200 3.5" InstantDrive

Important Note!

Thinking of buying a **BIG** drive? Dont waste your money on ***ANY DRIVE OVER 4.3GB*** as the Amiga O/S doesn't support it! (2^32-1 bytes actually). They appear to work but overwrite the RDB after 4.3GB into the drive. Be warned!

- All drives come ready-to-use with WB3.0 preinstalled & WB2.x install script.
- All drives over 350MB also come with over 45 top quality utilities (not shovelware) *and* MMe multimedia authoring software preinstalled, configured and ready-to-run

TowerDrives:			
1.7GB	£149.95	1.2GB	£129.95
3.2GB	£189.95	2.11GB	£159.95
		4GB *(to the limit!)*	£249.95

2.5" InstantDrives for the A600, A1200, SX32 & SX32 Pro

20MB	An entry-level drive ideal for the SX32Mk2 and A600. Limited stocks	£34.95
170MB	A 2.5" drive ideal for the SX32Mk2 and for the A1200/A600	£79.95
540MB	A fast, superslim drive with ample capacity for most users	£129.95
1.08GB	The high performance superslim drive is ideal for power users	£179.95
1.8GB	This top-of-the-range drive is perfect for the A1200 & SX32Pro	£189.95

D-I-Y and Bargain Corner

Hard-to-find parts for your Amiga project

Hard , floppy drive cables and cases	
2.5"-2.5" 44-way 2.5" HD cables 9cm £8.95, 13cm £9.95, 60cm	£19.95
2.5" 3x44-way hard drive cables for 2 x 2.5" drives (6cm+6cm)	£12.95
3.5" power & data cables for A600 & A1200 £14.95; full fitting kit	£24.95
3.5" external hard drive case £19.95, 3.5" removable drive case	£24.95
3 x 40-way IDE cable for 3.5" HD/CDROM ~85cm/2' 9"	£9.95
Custom 3 x 40 IDE cables to 1.5m/5' (enclose drawing)	£19.95
3.5" hard drive to 5.25" bay mounting adapters	£5.95
2.5" hard drive to 3.5" bay with 3.5" data/power cable adapters	£11.95
3.5" floppy/SyQuest/Zip drive to 5.25" bay mounting adapters	£6.95
40 pin m-f detachable data cable forexternal 3.5" HD/CDROM's	£9.95
Slimline external floppy/IDE SyQuest/IDE ZIP/IDE Jaz case	£9.95
SCSI cable 25way 'D'(m)to 50way Centronics (m) (1m)	£9.95
SCSI cable 50way Centronics (m) to 50way Centronics (m) (1m)	£9.95
2 x 34pin ribbon cable + faceplate for A1200 int'l floppy in tower	£12.95
23p-M to 23p-F external floppy ext'n cable 0.5m £12.95; 2m	£14.95
Audio & video cables and adapters	
3.5mm stereo jack plug to 2 x phono plugs for CDROM	£5.95
CDROM standard 4 pin inverted T audio connector & phono plugs	£9.95
Phono plug x 2 to phono plug/socket x 2 audio mixer leads	£6.95
Stereo 2 x phono plug to 2 x phono plug 1.1m/4' (4.8m/16' £9.95)	£4.95
Stereo speakers (pair), with amp (16wPMPO) & mains psu	£9.95
Power supplies , cables and PC towers//desktops with integral psus	
IDE or SCSI CDROM case, 40w PSU, audio & data connect's	£59.95
Enhanced metal cased PSU for A600/A1200/CD32/CDROM/ external HD (fit your old lead - instructions provided)	£29.95
Mini-tower or desktop case with 200W/230W PSU, CD & HD/Zip bay, power lead connector block, resistor, cable restraint etc, & full instr'ns	£39.95
Genuine CD32 PSU £14.95; Genuine A1200 PSU	£19.95
4-pin M-F HD prw extn 0.9m/3' £9.95; 4-pin(m)->2x4-pin(f) splitter	£6.95
23 pin m floppy drive connector to 4 pin HD/CDROM power plug	£9.95
Miscellaneous	
A1200 /SX32 internal cooling fan - dissipate that extra power!	£14.95
VGA 23-15 pin adapter for A500/600/1200 £12.95; buf for A4K	£19.95
A4000 kbds (new) for CD32/A2000*/3000*/4000 (*adapter +£5)	£39.95
50MHz capable PGA FPU £39.95; A1200 RAM boards	£29.95
Amiga CDROM disks - our selection - 5 for	£10.00
A1200/A600 internal floppy drives £24.95; A1200 keyboards	£29.95
Amiga microswitched mouse with mousemat	£6.95
ScanQuix3 PC printer cable adapter - parallel Epson scanner	£9.95
28.8/14.4 compact data/fax modems £39.95, **14.4/14.4 from**	£19.95
A1200 Workbench 3.0 disks (5) £14.95 WB3.1 disks (6)	£19.95

Four new Amiga Expansion Products from Eyetech

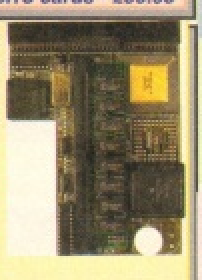
PortPlus - high speed serial and parallel port expansion



- *2 x **460Kbaud** buffered serial ports with low CPU overhead*
- *PC & Amiga compatible parallel port transferring up to **500K bytes/sec***
- *Very easy to fit **& leaves PCMCIA & trapdoor free. Zorro versions too!***

PortPlus* - 2x serial & 1 x parallel - *just £89.95!
PortJnr* - 1 high speed serial port - *just £44.95
New! PortPlusZ3 - 2xP & 1xS - £69.95; PortPlusZ4 - 4xS - £89.95
PortXtra - adds extra 2xS & 1xP to PortPlusZ3/Z4 Zorro cards - £59.95

Apollo Accelerators - Unbeatable pricing



A600 - **33MHz '030 with MMU & FPU exp to 32MB** *£99.95*

Entry level A1200 Accelerators - Unbelievable value

25MHz '030 with MMU & FPU. (5 Mips)	- *Just* £68.95
33MHz '030 with MMU & FPU. (7 Mips)	- *Just* £79.95

Power User A1200 '040/'060 accelerators (no tower req'd)

25MHz '040 with MMU & FPU. (19 Mips)	- *Only* £138.95
33MHz '040 with MMU & FPU. (25 Mips)	- *Only* £158.95
40MHz '040 with MMU & FPU. (30 Mips)	- *Only* £198.95
50MHz '060 with MMU & FPU. (39 Mips)	- *Only* £278.95
66MHz '060 with MMU & FPU. (51 Mips)	- *Only* £339.95

A Standard A1200 is rated at 1.3 Mips. All measurements from Sysinfo

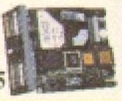
***Memory** : 4MB - £14.95; 8MB - £24.95; 16MB - £49.95; 32MB - £99.95.*

Interface Island

Where your Amiga does more

A1200/A4000 non-Zorro	
4-device A1200 buffered EIDE i/f	£39.95
4-device EIDE interface for A4000	£19.95
EZ-Key **A1200-PC/A2000 k/b adapt'r**	£39.95
EZ-DF0 **interface for Sony floppy**	£14.95
EZ-DF0 **i/f, with Sony floppy & cable**	£39.95
DiskPlus **DD/HD Amiga & PC 2x FDD i/f**	
- for A1200 hard drive IDE port	£64.95
- for A1200 clock port	£69.95
- for A4000 IDE port	£69.95
PortPlus 2x 460Kbaud ser + 1 x par	£89.95
PortJnr 1x 460Kbaud serial port	£44.95
Audio mixer skts/leads for EZ-Tower	£19.95
Zorro II/III	
GG2+ - use PC cards in Z2 slots	£129.95
IDEPlus 3x2 IDE + 2x DD/HD PC & Amiga floppies. With full IDEfix CDROM s/w	£79.95

SX32Mk2 - £149.95
SX32Pro50 - £299.95
SX32Pro40EC-£249.95



ScanQuix3 Scanner Software

for all Epson parallel or SCSI scanners and HP, Mustek, Artek SCSI scanners

"An excellent piece of software"
Gold award - Amiga Format 11/97

- 24 bit scanning with full range of editing options
- 'Scan-to-disk' option in Jpeg or IFF formats
- Stand-alone use or integrates with your Art package (Photogenics, ImageFX, AdPro, XiPaint, Pagestream 3, DPaint5, ArtEffect, PPaint)

ScanQuix v3.0 - only £59.95

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Voted AUI Amiga Company of the Year 1996/7

EYETECH

Next Day delivery to EC and USA/Canada. Worldwide deliveries in 2-7 days from receipt of faxed order and payment details (eg SX32 next day to NYC £25.30)
UK m'land next day insured del'y charges: S/w, cables, buffered i/f £3; 2.5" drives, accel mem boards £6; manuals £7; 3.5" drives, modems, psu's £8.50*; Twrs, CD+ £10*. (*2d
Ring/fax/email for other delivery costs

UK bank/building society cheques, Visa*, Mastercard*, Switch, Delta, Connect, Postal Money orders accepted. * A 3% surcharge is applicable to all credit card orders.
Due to space limitations some of the specs given are indicitive only - please ring/write for further details. **Please check prices, specs and availability before ordering. If ordering by post please include a contact phone no.** Goods are not supplied on a trial basis. E&OE
All prices include VAT at 17.5%.
VAT is not applicable to non-EC orders

COVER DISKS
Scala MM300



Scala MM300 is an incredibly versatile multimedia authoring system. It allows you to make visual presentations, slideshows, video effects, video titling, interactive information services and lots more if you put your mind to it.
One of Scala's best aspects is its usability. Almost anyone can pick it up in a matter of minutes and be baning out slick and professional looking projects with ease. For the more technical user there's also an ARexx port to allow automated processes to be set in motion.

Loading instructions

You can run Scala straight from the CD or simply drag the Scala drawer over to your hard drive. Click the MM300 icon to start the main program. Disk users have a simple installer. Boot from your hard drive and insert the first cover disk. Open the disk and then drag the icon that appears over the required destination on your hard drive. Scala will then be installed. You'll find some additional Scala data on the second cover disk. Copy the contents of the Fonts drawer into the Fonts drawer of your Workbench or Sys: partition on your hard drive. The fact that you don't have many data files on the disks doesn't detract from the use of Scala, as you'll be using most of your own graphics, animations and sounds once you get the hang of it.

I Scala is one of the best Amiga programs ever to have been written. No other program takes advantage of the Amiga's unique hardware to the same degree, producing such professional results. Once you've seen it in action we can guarantee you'll be amazed. Nothing else comes close to producing such powerful video effects, synchronised sound and sheer professional smoothness.

Scala is still used by professionals to this day, and you'll soon see why. Scala pops up everyday on television, in Hotels, in information kiosks and museum exhibits.

What can it do?

What can't it do! You might think that Scala is nothing more than a glorified home video titling program. It's not - is much, much more. In many ways Scala is a complete visual programming suite. It's easy to use because it has a special interface called Human Touch, which is designed to be as "point and click" as possible. However, there is also an underlying programming language called "Lingua" if you want get down to low-level coding.

Scala is extremely flexible. It comes with software extension modules for driving extra hardware, such as CDTV's or genlocks. Scala also speaks ARexx, which means it can communicate with other applications, including AmigaDOS itself.

When it comes to good timekeeping, Scala is unbeatable. Pictures load in a flash, and you can play standard Amiga ANIM files back-to-back with no pauses or skipping. Larger files can be spooled directly from hard disk, and Scala also supports MIDI for high quality music when used with extra hardware. You can also use standard MOD files to provide a soundtrack for your animations, and with a unique real-time recording you can quickly synchronise everything perfectly.

With its extensive collection of text effects and wipes, Scala can produce effects on an A1200 which even top of the range PCs still can't get close to matching. Smooth scrolling text, excellent fades and professional subtitle features... it's like having your own multi-thousand pound digital effects studio.

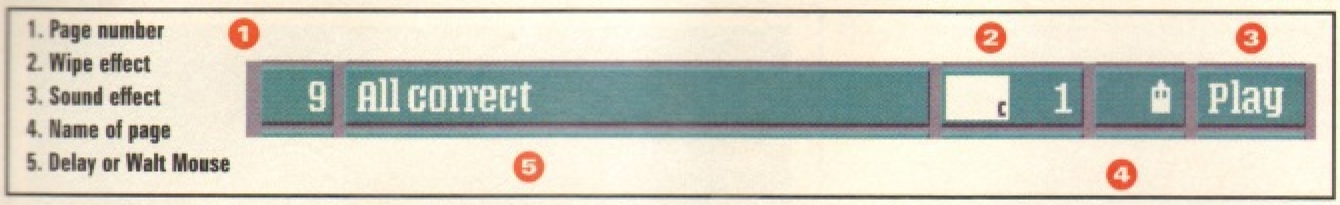
What can you use it for?

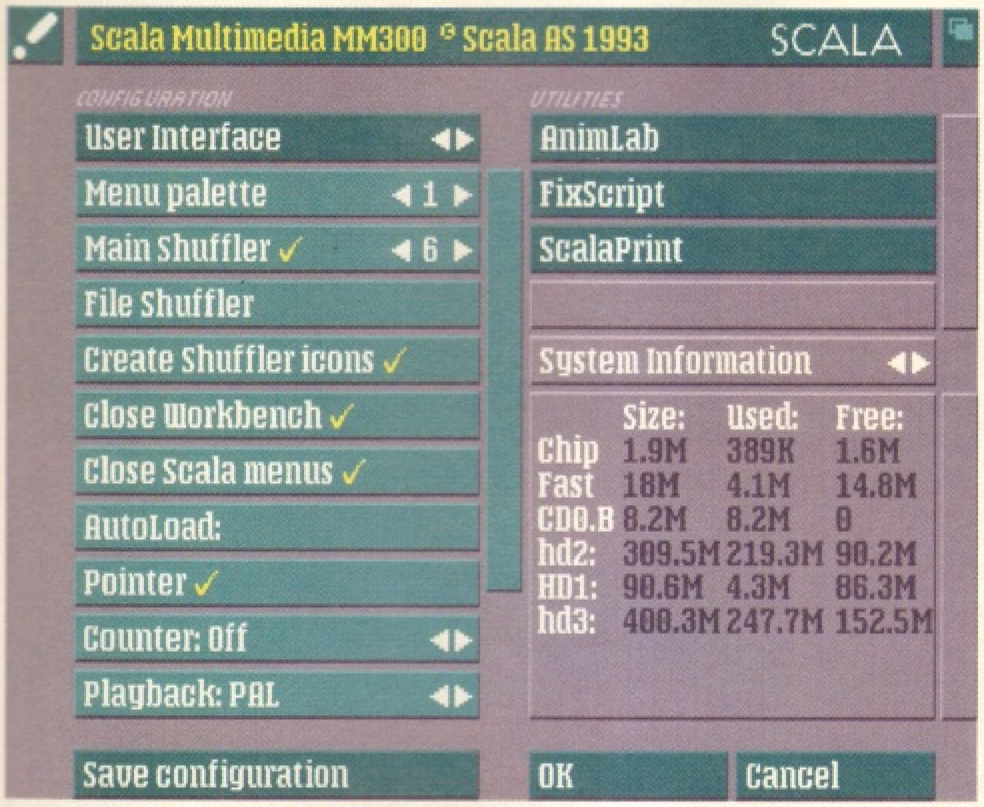
Scala can be used for anything which makes use of graphics or sound. Here are some examples of what you can use Scala for - with it's standalone player program you can create dazzling presentations to impress your friends.

Slideshows, titling your home videos, creating interactive training applications, quiz programs, linking animations together for recording to video tape, adding sound effects to animations, creating music videos, writing games, multimedia, stand-along information kiosks, business presentations, show window displays, museum exhibits,...

1. Click here to quit
2. The pages which make up the current Scala project
3. Page control buttons
4. Swich to Shuffler mode
5. Load/Save buttons
6. Run the current script
7. System properties screen
8. Scroll bar
9. Toggle to a differnet screen







Introduction to Scala

When you first launch Scala, you'll see the main editing window. From here you can create and edit the individual pages which make up a Scala "Script". From here you can also load and save previously created scripts, alter the system settings and start the current script running.

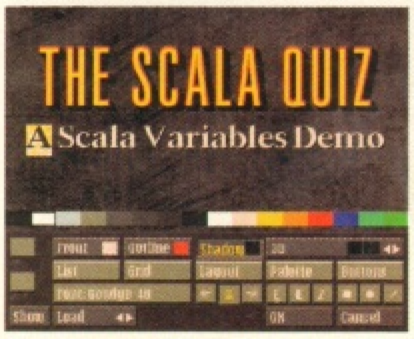
You'll notice that the Scala system looks slightly different from standard Amiga windows. Don't worry – if anything, it's even easier to use. There are no menus to appear, so don't waste your time with the right mouse button.

Each page in the script is represented by one numbered horizontal bar. You can see the page as it will appear in the finished script by clicking on the Show button in the bottom left, and then selecting the page.

The page bar has five parts to it. The number, the title, the wipe effect, the timing delay and the sound event. This makes it easy to alter the properties of the page: for example, if you want the page to automatically move on after a second's delay, click in the timing area and a window will pop up allowing you to choose the delay. The picture of the mouse means that the page will move on only after the mouse has been clicked.

At the bottom of the main editing window is the Shuffler button. Click here, and instead of the horizontal bar display you'll see an array of images. These are the pages which make up the script, and in this mode it's easy to get an overview of your script and re-arrange the order of pages as needed.

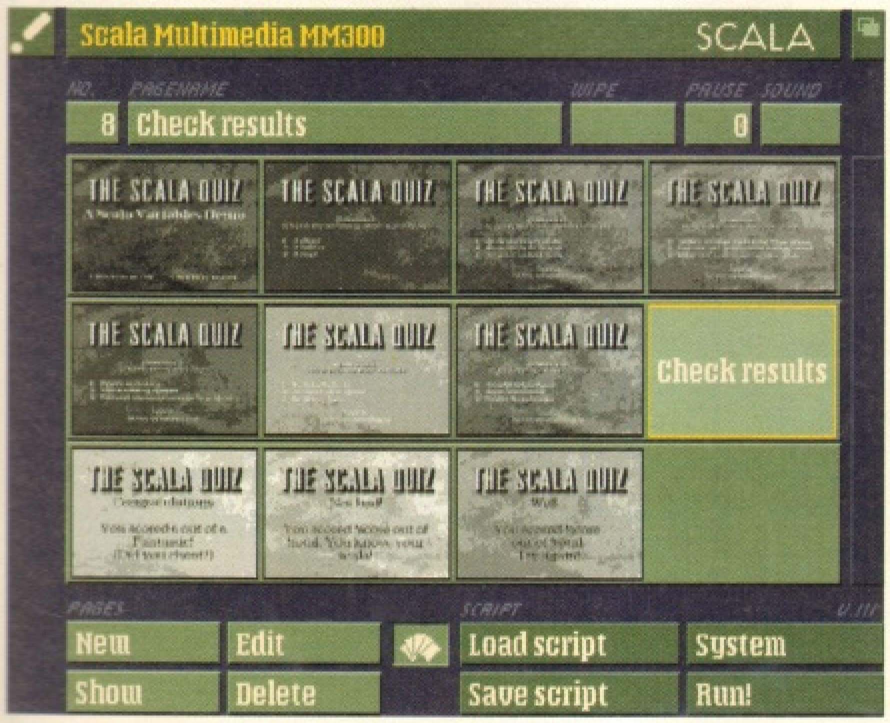
If you select the System button, you bring up this screen for altering various settings. You can change the colour of the screen for example, or alter the size of the Shuffler images. If memory is limited, you can switch off the Workbench display and you can also check on theinstalled EX modules (for controlling external hardware) and launch the Scala support utilities.



▲ Make your own interactive presentations.

When you want to edit a page, or create one, return to the main display. You can edit an existing page by clicking on the Edit button, or by double-clicking on the page name. This will pop up a display like this one.

This looks like quite a complicated display, but it's very easy to use. From here you can enter text onto the page: simply click and start typing. The various buttons allow the font, size, colour and style of the text to be changed. The "In" and "Out" buttons allow you to control how the text appears and disappears. You can also create buttons and load brushes and backdrops, but we'll cover that in more detail later.



▲ Everything is presented in clear graphical formats, making it a breeze to use.

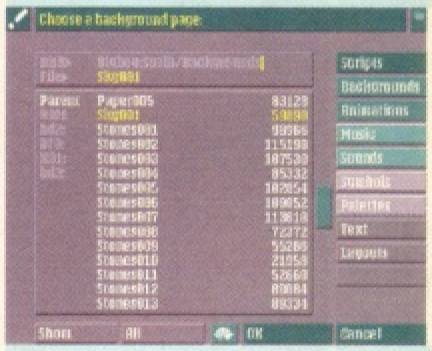
Creating your own Scala Project

One of the best ways to learn the workings of any package is to get stuck into a new project from scratch. We'll start with a fairly simple one that includes some moving graphics and a bit of sound too. Here goes...



▲ **Step 1**

Start Scala running. You'll be greeted with a totally empty script, ready for you to get started. Let's create our own extra flash slideshow, complete with musical soundtrack: so get some of your favourite pictures and MOD files ready.



▲ **Step 2**

Click on the New button to create the first page. Scala will prompt you for a backdrop texture. Click on the Shuffler icon if you want to see what they all look like. The number of backdrops will depend on whether you are using the CD-ROM version or not, but you can use any image as a backdrop.



▲ **Step 3**

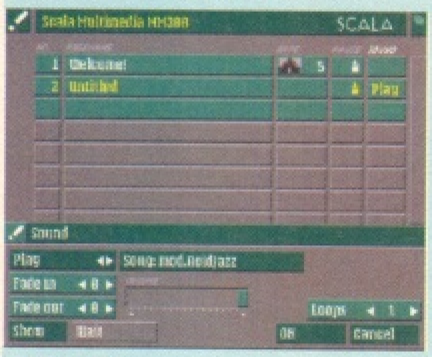
Now add some text. This is going to be our title screen, so a little introduction is necessary. You will have to change the colour of the text (click on a colour from the palette, and font to make it more legible.and then on Front) and also it's size



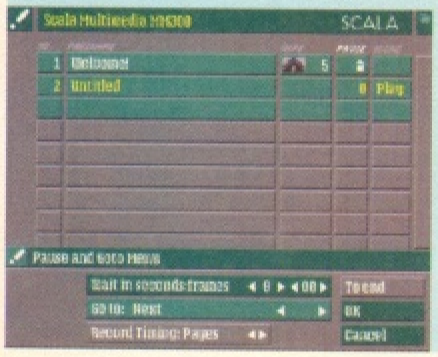
▲ **Step 4**
Let's make it a little more interesting. Select the text (drag a box around it) and then click on the button marked In. You'll see a window containing all the possible ways of making the text appear. Try them out (using Show) and then select your favourite.



▲ **Step 5**
Click OK, and you can name your page. Click OK again, and you will be back at the main editing screen. We don't need to alter the timing as it is already set-up to wait until a mouse click (right button this time), but you might want to click on the Wipe button and select a new style for the entire page to appear.



▲ **Step 6**
Let's get some sound going. On the second page bar, click in the empty sound slot. You can now select some music to play: click on the left-most button to change to play, and then select a MOD file. You can now alter fade ins and outs, and



Step 7 (see bottom of previous column)
Alter the timing now, or the music will start and nothing else will happen until the mouse is clicked. Alter the Wait setting to 0s, and that will mean the page will move on as soon as the tune has started. You should give this page a name - click on the page number and enter a title.



▲**Step 8**
Now add the pictures which make up the slideshow. This is easy: click on New, and then select the picture you want as the backdrop image. Repeat this for each picture, until you've added them all. Use the Shuffler mode to see the pages as you make them.



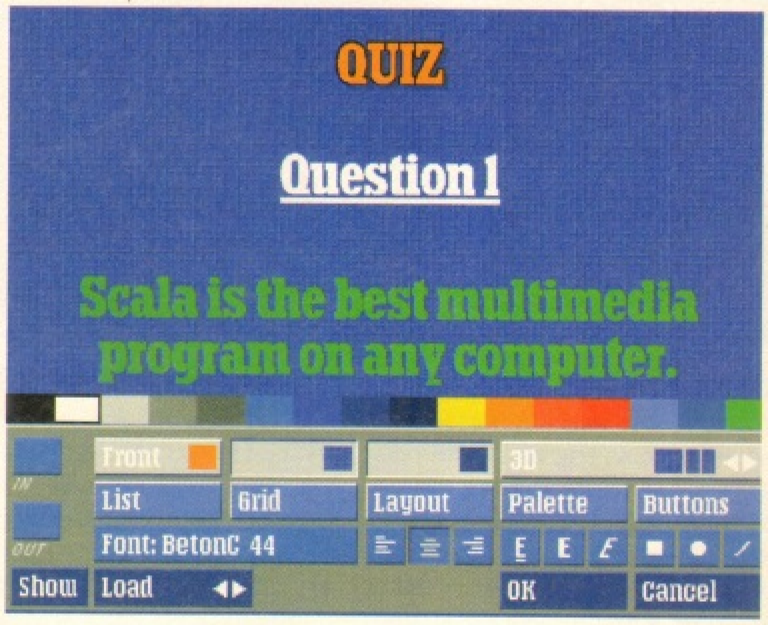
▲**Step 9**
The final step is to adjust the timing. Alter each of the picture pages to pause for a few seconds, rather than wait for the mouse click. Depending on the pace of the slideshow, 3 to 5 seconds will be more than enough. Alter the Goto: setting of the last page so that it loops back to the first image.



▲**Step 10**
That's it all done! Run your script now, and watch your classy slideshow complete with music backdrop. When you get more adventurous you will be able to synchronise the slide changes to the music, or even playback animations and a running commentary.

Interactive quiz project

Let's now look at how Scala allows interactive presentations to be made. The easiest way to do this is to examine buttons, and how they can cause your script to jump to specific pages rather than simple appear one after the other. We'll use a simple pub quiz machine format as an example. This could be adapted for all kinds of other applications. Should you ever get contracted to design and build an information kiosk for a historical town centre (well you never know) you could have buttons which launched digitised movie clips of horse drawn carts and people in funny hats. Not that it's that likely, but you get the idea. Alternatively you could make an interactive multimedia database of your favourite things, whether that's rare dog breeds, classic cars, steam trains or international cheeses.



▲ **Step 1**
With an empty Scala script to start with, create a new page by clicking on he New button. Now enter some text introducing the quiz, and the first question. Design the question to have a Yes or No answer. Save the page.



▲ **Step 2**
Now we need to create a page which will be displayed if the user of your script gets the answer to the question right. All you have to do is define another new page, and include the word "Correct!" right slap bang in the middle, like this.



▲ Step 3
After the answer has been displayed, we want the quiz to start again. If you want to add other questions, then you would jump to the next question page in the script. From the main edit window, select the Pause setting and alter the Go to: to jump back to the Question page.

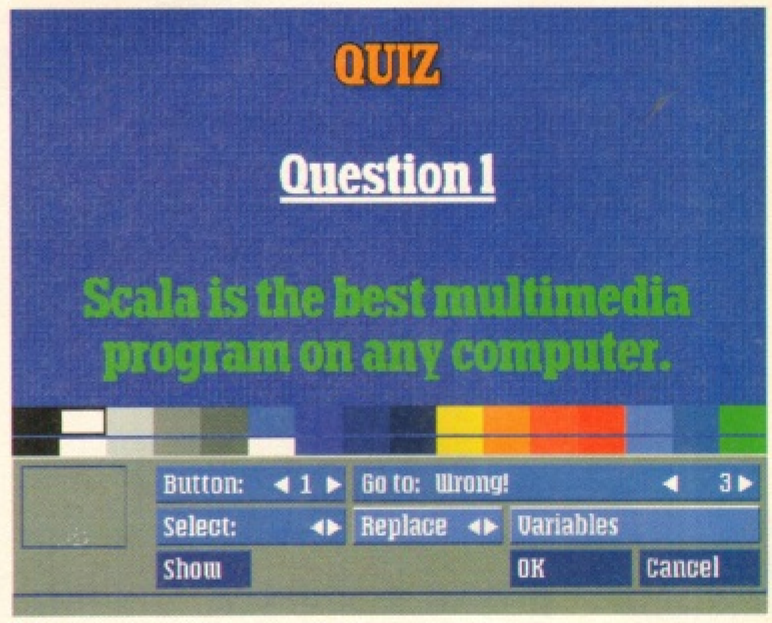


▲ Step 4
Repeat this for the page which is displayed when the wrong answer is given. Again, alter the Go to: part so that it leaps back to the start of the script and the first Question page. You might want to add some wipes and sound effects at this point.

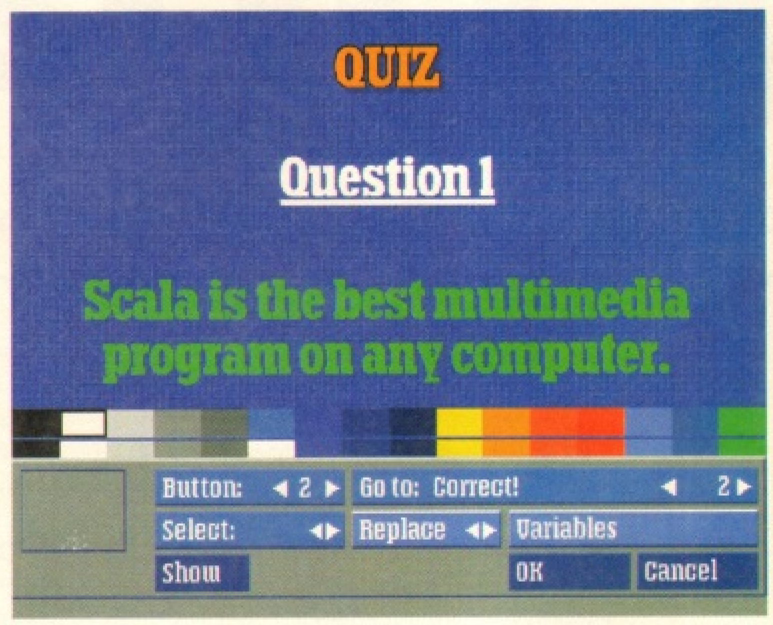


◀ Step 5
Now we can edit the Question page to add the Yes or No buttons. The easiest way to define a button is to draw out a shape using of the shape definition buttons. Draw two shapes and then add some text on top of them with Yes or No.

▶ Step 6
To make these shapes into buttons click on Buttons. You can define buttons by marking a region of the screen, or selecting an existing object. Right-click to make the control panel disappear, and select one of the shapes with a right click. Right-click again, and the button is defined.



▼ Step 7
You can now define which page the button will lead to: obviously this depends on the question. Repeat for the second button – notice how you can click on the arrows beside Button: to change the currently selected button.



▼ Step 8
That's all there is to it! You can now run your script and test yourself to see if your answers are right. You can then add more pages, more questions and more sound effects. Scala also has internal variables which can keep score: something to add later.





DIY Scene: CDDA Mixer

Combine your Amiga and CD-ROM audio outputs with this month's quick and dirty DIY project.

All modern CD-ROM drives come with audio output connections. A headphone socket is standard on the front panel, but there's also a less obvious output on the back, commonly referred to as CDDA (CD Digital Audio). Wouldn't it be handy if you could patch this into your Amiga's audio output?

You could then have just one stereo connection feeding your speaker system. Even though the A4000 and A3000 have connections on the motherboard specifically for this, even then the level of the CD audio is much lower than the Amiga audio, so this month's project is quite applicable to all Amigas.

Background info

This little project is based around the highly useful TDA2822 stereo amp chip, which makes life a lot easier. Most of the components are on-board the chip so very few external components are needed. Figure 1 gives you the schematic for our little amp and you can clearly see that the whole project fits onto a small PCB.

The two audio sources are fed into the inputs of the chip via the resistor array comprising R4 to R9. The TDA2822 does its work and the outputs are fed out through C5 and C6. These capacitors are present to block potentialy harmful DC current reaching the output conections. R3 is a small current-limiting resistor and the decoupling is done via C2. Due to the fact that this project will be run from the computer's power supply, decoupling of the electrical supply isn't really needed, but should you decide to run it from a different supply, a 470uF electrolytic capacitor should be fitted across the supply rails the same as C2. R1 and R2 give a preset output impedance of about 8 ohms and should suffice for most applications.

Step 1: the PCB

And so to actually make the PCB. This month we have chosen to use stripboard because of the simplicity of the project and to create the availability of parts to everyone. There is no need to actually order special parts, and everything can be purchased from Maplin Electronics (see the parts list).

Firstly, we need to mark out and cut the stripboard. You will need a piece which is 19 holes long by 7 holes high. It is possible to cut the board by scribing along the strip of holes to cut with a craft knife and ruler. Once the board has been scribed, gently flexing it in either direction will result in it

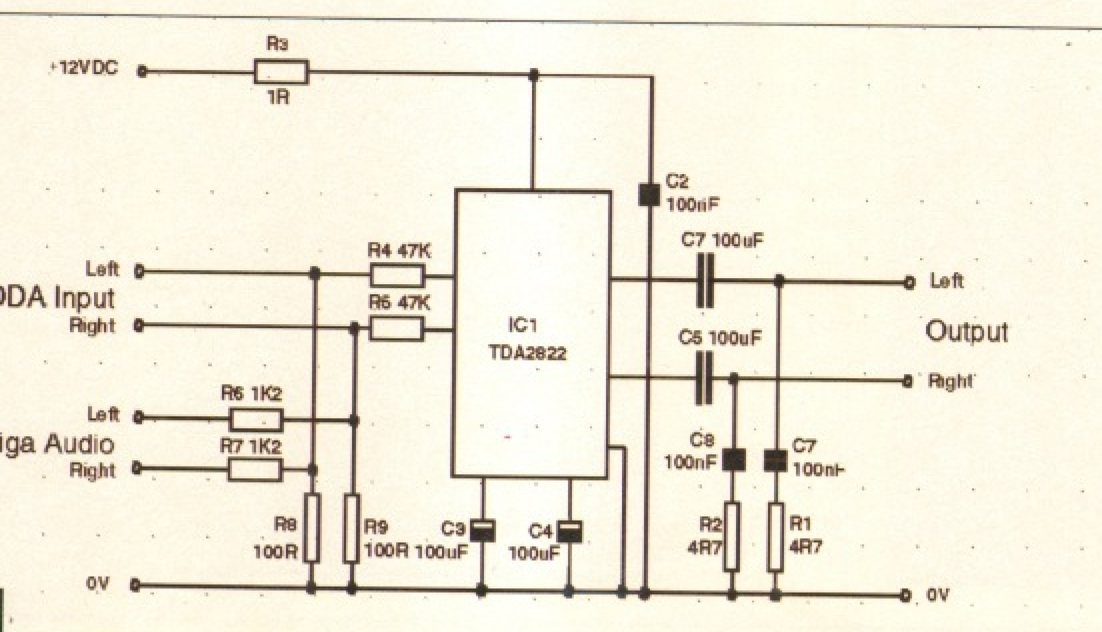


Figure 1.

cracking. Hopefully, if you made the scribes deep enough, it will crack along the marked lines. Do take care when trying to crack the board. Do it very gently until you hear it start to crack. Otherwise it is a job for a hacksaw and lots a patience.

Note that the strips should run along the board and not up and down. Check the picture to see how it should look – it also shows where the traces should be cut. These cuts can be made very simply by using a drill bit of about 5 or 6mm in diameter. Rotate the drill by hand in the hole that corresponds to the cut in the trace. The drill will start to remove the copper. Keep going until all the copper around the hole is removed. Repeat this process for all the cuts, 14 in all.

An important note to make here is to make sure that all the bits of copper are removed otherwise these will short out neighbouring traces. Using a craft knife, run it down the insulator strips at each trace to ensure they are clear. If you have a continuity tester or a multimeter, check that no short circuits exist. Care should be taken when handling stripboard as it can be very fragile, and too much pressure in one area can lead to the board cracking along a run of holes. If you need to push hard (you may have a blunt drill bit!), support the board on a hard surface.

Required Tools

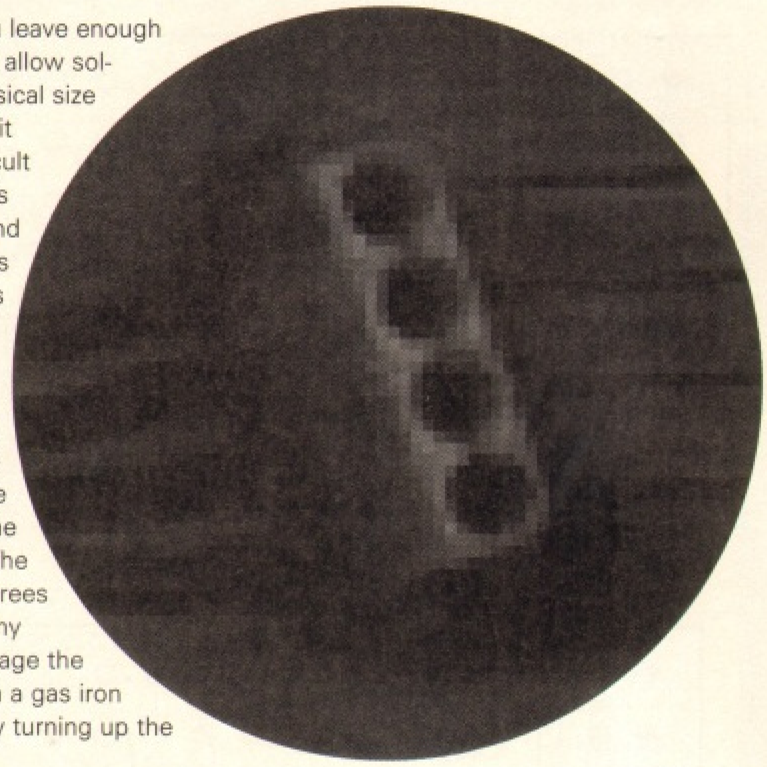
Phillips screwdriver
Soldering iron
Solder
Craft knife (if your not sure about this, get an adult to help you)
Ruler (straight edge)
Wire strippers
Multimeter (continuity tester)

Optional but useful
Tweezers
Straight screwdriver
Digital multimeter
Heat shrink sleeving
Side cutters
Hacksaw
"Helping hands" soldering tool

Step 2: soldering

So now we need to start soldering the components in place. There is no real order in which to do this, but I found it easier to start with the smaller components first. Check the circuit board picture for reference. Hold the board as in the picture. The left hand side is where the CDDA header socket fits on so turn the board over so that the left side stays the left side. Try to keep the board up this way until you start to put on some of the components. I'd hate to think you put the parts on with the board upside down!

The wire links are fiddly so it is probably better to start with these. Figure 3 shows how the links fit in. A tip here is to use the legs cut off the components to make the links, but do make sure you leave enough wire on the components to allow soldering. Because of the physical size of the traces on stripboard it makes soldering quite difficult to the beginner. To ease this situation I would recommend you buy one of refillable gas soldering irons. Most mains soldering iron tips maybe too large, but you could file them down.



Another benefit of a gas iron is the heat. Many components don't like excessive heat especially chips and the TDA2822 is no exception. The chip will withstand 300 degrees for about 10 seconds but any more will undoubtedly damage the part beyond useability. With a gas iron you can alter the tip heat by turning up the gas setting.

Soldering is the most important part of any kit building, as not enough heat will result in something known as a 'cold solder joint'. These set up a large resistance at the joint and can be a real pain to track down, but by the same token, too much heat will start to kill electronic components. See DIY Scene in the November issue for more soldering tips.

Step 3: plug ins

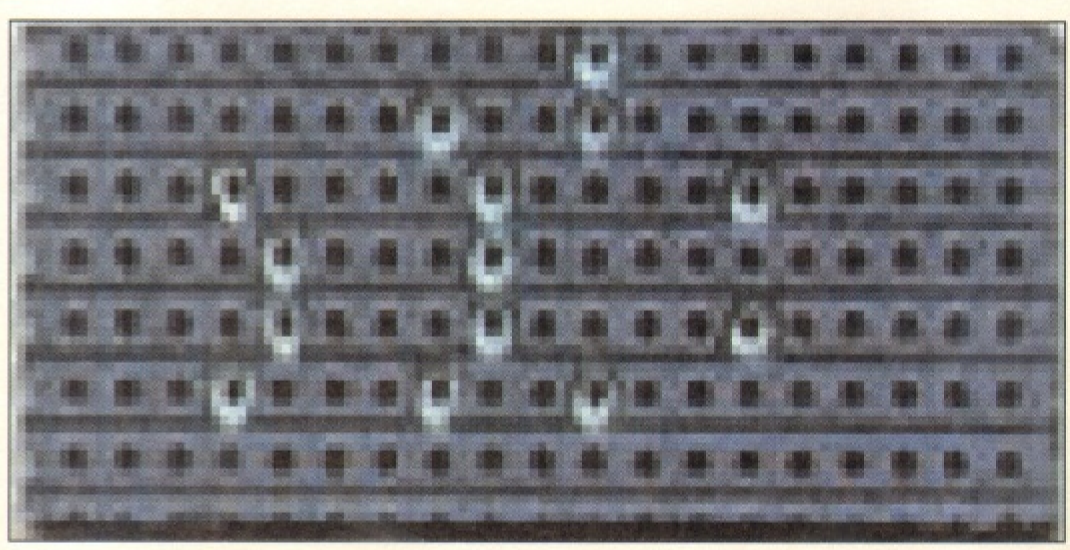
So now you should have the wire links soldered in. Link 1 is in a rather awkward place and you need to make sure that any surrounding components do not short out on it, so bend it accordingly to clear it away from the holes. By looking at figure 4, you can start to place the rest of the parts into their positions. Figure 4 shows component location and the holes used by each (as designated by a small black circle). I would recommend installing the resistors next.

Start from the left hand side and work your way across. As each component goes in, the legs should appear through the board into a trace. If for some reason you end up with a leg on a cut, you have either put it in the wrong place, or you have the board the wrong way round. Capacitors would be next, and again start from the left and work across. Referring to Figure 4 again, note that C3 to C6 are electrolytic and, as such, are polarised.

This means that they have to go in the right way around. If you put them in backwards they don't work well. Each of the capacitors has markings on the body, usually in the form of a line that points to one of the legs. It may have minus signs in the line and this shows that the indicated leg is the cathode or negative connection. Figure 4 shows the polarity of these parts. C2, C7 and C8 are not polarised so they can be fitted either way around.

Then comes the CDDA header socket. Again care should be taken to avoid shorts with the wire link L1. And lastly the TDA2822 chip itself. One note here is that the chip has to be oriented correctly. If you look at the top of the chip you'll see that it either has a small scollop in one end or a small dot.

In the case of the dot, this marks pin 1, whereas the scollop if it were at the top, pin 1 will be the one at the top left. A warning here is that if you do manage to put the chip in incorrectly you'll damage it, so Figure 4 shows that pin 1 is at the bottom right. In effect the chip is in upside down.



◀ Use this diagram to locate the cuts in the stripboard tracks correctly

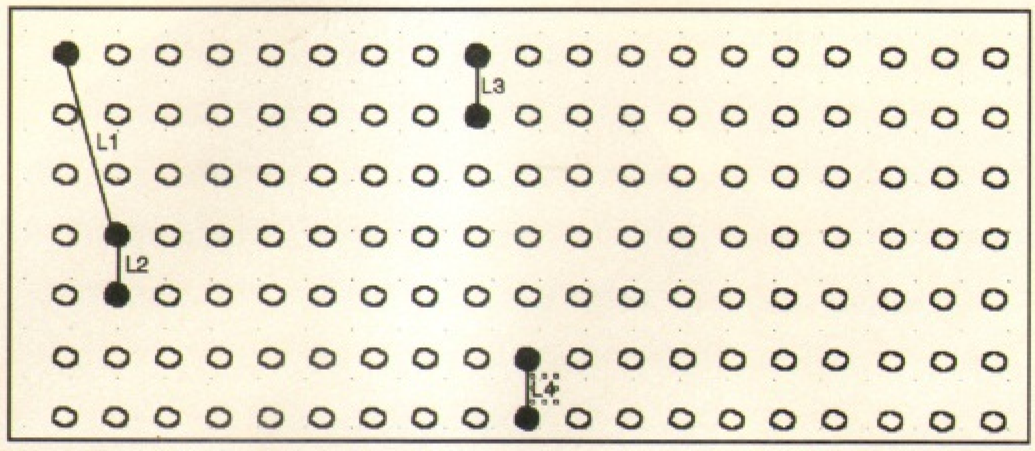


Figure 3.

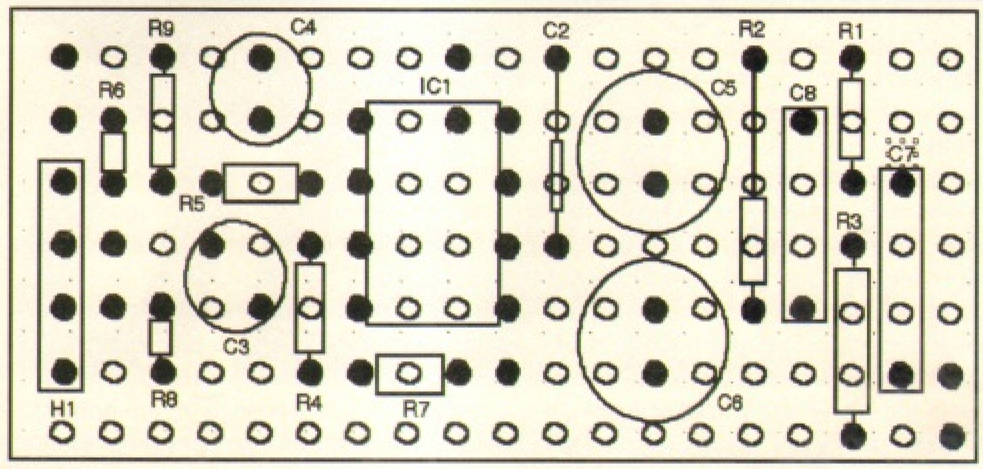


Figure 4.

Parts List

	Quan	Description	Order no:
1	CDDA Header socket	YW11M	0.42
1	LM387N Dual Pre-amp	UJ38R	1.29
2	4R7 1/4W Resistor	M4R7	0.05
1	1R1/4W Resistor	M1R	0.05
2	47K 1/4W Resistor	M47K	0.04
2	1K2 1/4W Resistor	M1K2	0.04
2	100R 1/4W Resistor	M100R	0.04
1	100NF Polyester disc	YR75	0.18
2	100uF 16V Electrolytic	AT40T	0.10
2	470uF 16V Electrolytic	AT43W	0.16
2	100NF 16V Polyester layer	WW41U	0.27
1	Stripboourd	JP47	1.52
	(Optional)		
1	3.5mm Stereo line	RK51F	0.55
1	each Phono plug	FJ88W/9W	0.32
1m	Coax cable	XR21X	0.39
10m	Power cable Black	BL00A	0.59
10m	Power cable Red	BL07H	0.59
1	Enclosure	FK73Q	1.21
Total Cost			£8.83

Step 5: connections

You now have a finished circuit board. This brings us to adding the cabling so that we can plug the different bits in. This is where the setup specific differences come into play. On our version I opted to bring the Amiga audio in on phono leads.

This is not too bad on a Zorro'd Amiga as there are always ways of geting cables in and out. If you are thinking of using this on an Amiga 1200 with an external CD-ROM then you'll have to make up the leads to suit your type of setup. If all else fails you could opt to solder straight onto the back of the audio sockets from inside the machine. Although possible, it is extremely fiddly and involves heat on a lot of components very local to the sockets. Use it as a last resort.

So our master has phono leads to bring the audio back into the machine, and it has a 3.5mm stereo socket on a lead for the PC-type speakers to be plugged into. This again depends on how you have your audio connected up. You could always wire up two phono sockets on the outputs to replace the originals.

These cables should be made from sheathed coaxial cable to give a good earth screen around the in/out cables. This helps to cut down on the electrical noise from inside the computer. Things like disk drives, hard drives etc can sometimes interfere, and a good screening will eliminate some of this.

The power is taken from the 12V lines running out of the power supply. The easiest way to tap into these would be to find a vacant power connector. The connector for hard disks has the power we need. Two lengths of cable, one red and one black, should be used for this and are connected up as in Figure 5. Here we show a hard disk connector but a spare floppy drive connector would do just as well. In fact, if you have a multimeter, you can take a 12VDC supply from pretty much anywhere you can find one.

Step 6: testing...

Just to be on the safe side, it's nice to be able to check that things are looking alright before proceeding. Using your multimeter, check the Amiga audio input pins for a resistance. If all is well, you should have about 2.5K across the two inputs and a reading of at least 500 Ohms from each one to earth.

Repeat the process for the CDDA socket, checking first the left and right together. Is it greater than 150 Ohms? Good. The last thing is to measure the value across the outputs. This should typically be high, at least 50K, but don't worry about being exactly as specified. Different component tolerances will affect these readings.

Step 7: kick it

Right, what are you waiting for? If you''ve got this far, let's plug it all in and try it out. You'll need some software to play an audio CD and examples are on all CUCDs. So get Ken and Barbie in that drive and crank it up. It was worth it, wasn't it? ■

Simon Archer

New! The Eyetech Complete Guide to Towering your A1200

Do-it-yourself EZ-Tower kits; Mk 2 EZ-Tower assembly; Keyboards and keyboard adapters; High density floppies; 100MB+ cartridge drives; Multiple IDE/ATAPI devices; Zorro slots; High-res graphics cards and scan doublers; PC-Pentium slave boards; Amiga-PC Networking & Integration; Port exp'n.

Do-it-Yourself EZ-Tower

If you are confident about undertaking a small amount of metalwork using hand tools then this is your lowest cost route to a really professional A1200 Tower system - capable of all the other expansion opportunities oulined on this page.

To build your D-I-Y EZ-Tower you will need to:

- Remove the back panel of the supplied PC tower by drilling out the aluminium pop-rivets
- Remove a section of internal shelving by making three short hacksaw cuts
- Trim down a removable plate using metal shears or a hacksaw and deburr any sharp edges with a file
- Fasten the custom back panel back in place using the screws provided or your own pop rivets.
- Clip the A1200 power adapter on to the PSU cables using a pair of pliers and the Scotchlock (squeeze-type) cable joiners provided.

Thats it! You've just saved yourself £20 for around 20 minutes work.

The Eyetech *DIY EZ-Tower* costs just *£99.95* - including all the components supplied with the ready-built *Mk2 EZ-Tower*.

The *DIY EZ-Tower* is also available to non-UK customers *without the PC tower* FOR EXPORT ONLY at £49.95 inc VAT @17.5%

Floppy drive and backup options

Bear in mind that you should ***always*** have a bootable floppy drive connected to the internal floppy drive 34-pin header as this may be the only way to boot your computer in an emergency. (Catweasel, Diskplus etc are not bootable)

Your DF0: options are:

- Use your old drive with the faceplate & extension cable supplied
- Use Eyetechs ***EZ-DF0*** adapter - £14.95, or £34.95 complete with new ***Sony*** floppy drive mechanism with built-in faceplate.

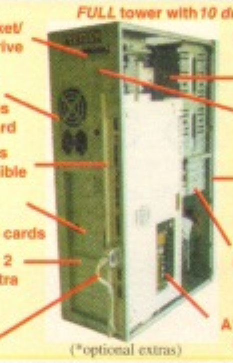
Backup and high density floppy drive options:

- Mount your external floppy in the EZ-Tower as DF1. (Its lead must be at least 70cm or you'll need a ***50cm extension cable*** - £12.95)
- Use a ***DiskPlus*** interface (you can still use 4 drives on the IDE port - Catweasel doesn't allow this) for DD/HD/XHD Amiga/PC disks
- Use an ***Eyetech LS120*** drive* on the IDE port. Reads & writes PC format 720KB/1.44MB diskettes & ***120MB superdisks*** (£14.95/1 or £34.95/3)
- Use an ***Eyetech IDE Zip*** drive* for standard data interchange with PC's, Mac's (supported by Shapeshifter) and other Amigas.

** Eyetech EZ-IDE software required*

The All-New Eyetech EZ-TOWER

"This definitely one of the easiest solutions to building your own tower." Amiga Format - July 1997
"The Eyetech tower offers clever solutions with a Velcro easyfit mentality" Cu Amiga - Oct 1997

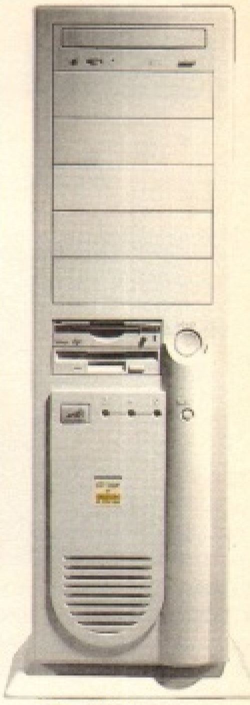


(*optional extras)

It Couldn't be Easier!

- Remove the case top and keyboard ribbon cable *(No shield removal required).*
- Slot in the ribbon cable from the optional PC/ Amiga keyboard interface.
- Mount existing and new hard and floppy drives and CDROM units in the bays using the screws provided.
- Connect up the drives power and data cables.
- Clip the A1200 motherboard/base into the custom backpanel.
- Push on the power/HD/FDD LED adapter and the A1200 power connector.
- Put back the outer case. Thats it! ...

Now You've Got Tower Power!



The A1200 EZ-Tower

A fabulous, time-limited EZ-Tower System offer from Eyetech!!!*



- ***Ready built EZ-Tower*** with 250w PSU
- ***EZ-Key*** keyboard adapter, ***Windows95 keyboard.***
- ***Full UK specification A1200, Kickstart 3.1/Workbench 3.1*** disks, manuals, mouse, mousemat and TV lead.
- ***880KB Sony floppy drive*** including faceplate and ***EZ-DF0*** interface
- Fantastic software bundle including ***Wordworth 4SE, Turbocalc 3.5, Datastore 1.1, Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, Pinball Mania and Whizz***
- All items fully installed, tested and ready-to-go!

Complete EZ-Tower floppy system as described left (component price £495) for *Just £349.95*

Why not have these upgrades installed *at time of purchase only* at the following very special prices:

- ***1.2GB*** TowerDrive and cable for ***Just £79.95***
- ***Apollo '030/33MHz accelerator with MMU, FPU*** and ***8MB*** memory for ***Just £89.95***

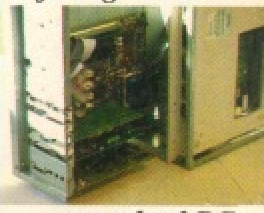
* Prices in this box are not valid in conjunction with any other offer from Eyetech

What about PowerPC upgrades? The Blizzard PowerPC boards from phase5 will fit in the trapdoor space of an EZ-Tower'd A1200, with or without a Zorro expansion board. However you should bear in mind that the PPC boards will be limited to providing 'subroutine' support to specially written 680x0 programs (just like an expensive FPU) for the forseeable future. If and when a proper native PPC Amiga operating system is available Eyetech will start stocking and supporting these boards directly.

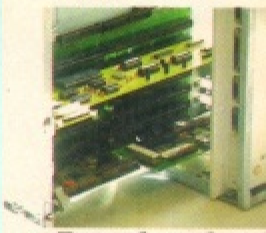
All EZ-Towers ...



...feature a slide-out mounting frame for fitting either ...



...a standard PC motherboard and cards, or...



...a Zorro board and cards (as well as your A1200).

Looking for an all-in-one package? Why not treat yourself to the Eyetech EZ-Tower Professional Pack?

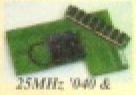
Just look what you get for an unbelievable *£799.95!*



The Eyetech Professional pack comes with a full EZ-Tower, new WB3.1 A1200 and ...



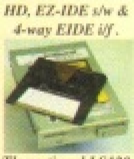
EZ-KEY & Win95 k/b,



25MHz '040 & 16MB fast RAM,



8x CDROM, 1.7 GB HD, EZ-IDE s/w & 4-way EIDE i/f.



The optional LS120 120MB Superfloppy

- ***EZ-Tower*** with full UK specification A1200, ***Kickstart 3.1/Workbench 3.1*** disks and manuals, mouse, mousemat, TV lead and 250watt psu.
- ***EZ-Key*** keyboard adapter, ***Windows95 keyboard.***
- ***25MHz '040*** processor (approx 19 Mips) with MMU & FPU and ***16MB*** of program memory.
- ***1.7GB TowerDrive*** with Workbench 3.1 and shareware utilities preinstalled
- ***8-speed CDROM*** including the ***Eyetech 4-device buffered interface*** with ***fully registered EZ-IDE*** CDROM/hard drive/IDE Zip drive/LS120 driver software (see main ad for EZ-IDE details)
- ***880KB floppy drive*** including faceplate
- Fantastic software bundle including ***Wordworth 4SE, Turbocalc 3.5, Datastore 1.1, Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, Pinball Mania and Whizz***
- All items fully installed, tested and ready-to-go!

AND the option to have:

- An ***LS120*** 720KB/1.44MB/120MB super floppy drive/cable installed in your machine for ***just £89.95 extra*** (at time of purchase only)

Graphics cards, scan-doublers and the single-slot Zorro option

The Eyetech single slot Zorro adapter fits close to the A1200 main board allowing a PC motherboard and selected PC cards to be fitted simultaneously. It has primarily been designed for use with Amiga Graphics cards such as the Cybergraphics 64/3D from phase5. Please note that as there is no practical, reliable way to abstract the video signals present on the A4000 Zorro video slot from an A1200 (without soldering onto the main board) you cannot successfully use the built-in/optional scan doublers on the Picasso IV or Cybervision64/3D boards with any add-on A1200 Zorro adapters.

To overcome this limitation Eyetech has produced two plug-in adapters which can be used either individually or together - depending on your existing monitor's scanning capabilities.

The ***AUTO-MON*** adapter works in conjunction with the Cybervision 64/3D card to automatically display the output of your current program whether retargetted to the CV64/3D card or displayed via the AGA chipset. If you have an Amiga-compatible multisync monitor the *AUTO-MON* is all you need for seemless use of your Amiga.

The ***EZ-VGA*** adapter is an external unit that attaches to the 23-pin video socket of any Amiga and automatically scan-doubles any 15Khz screen mode signals so that they display correctly on a normal PC SVGA monitor. PC-compatible screen mode signals (DBLPAL, Productivity, Super72 etc) are passed through unaltered.

AUTO-MON adapter £39.95
EZ-VGA adapter £79.95

Love your A1200 but need PC compatibility for work or study purposes? Then you need Eyetechs EZPC-Tower system for your A1200.

Just *£899.95* gets you a ready-to-run system with:

- A full Amiga EZ-Tower system ready to take your A1200.
- Jumperless 266MHz-capable 'TX' PC Pentium board with 166Mhz cpu, 32MB of memory, Windows 95 keyboard, mouse and Windows 95 operating system.
- High performance, high res graphics card with full screen/full frame rate MPEG playback (with sound).
- 32-voice high performance sound card with direct-to-disk, CD-quality recording software.
- 1.7GB hard drive, 16-speed CDROM, 2 x serial, 1x parallel ports and 1.44MB high density floppy drive.

AND either the Eyetech *EZ-PC* integration pack:

- The Eyetech ***EZ-VGA*** compact, external Amiga scan-doubler to display 15KHz modes - eg games - on a PC SVGA monitor.
- ***PC-Amiga networking software*** which allows all PC side hard drives, floppy drives, CDROM drives and networked drives to be read from and written to by the Amiga, including cable.
- The Eyetech ***EZ-Key*** PC keyboard adapter for the Amiga
- A remote desktop switchbox to flip monitor and keyboard between the PC and Amiga sides

OR the Eyetech *Siamese* pack (additional £99.95):

- The full ***Siamese system version 2.5*** software including retargetable graphics.
- The Eyetech ***EZ-VGA*** compact, external Amiga scan-doubler to display 15KHz modes - eg games - on a PC SVGA monitor)
- The Eyetech ***EZ-Key*** PC keyboard adapter for the Amiga
- The ***AUTO-MON*** automatic monitor switch to display either the PC graphics card output (including retargetted Amiga screens) or the scan-doubled Amiga output for Amiga screens - such as games - which will not retarget onto the PC display

The EZ-Tower has great accessibility!



Just undo 5 screws to remove the back and side panels. Another 4 screws and the PSU can be removed to allow you fully access the A1200 board.

EZ-Tower Pricing Information

Code	Description	Price £	Code	Description	Price £
EZ-Tower cases, systems, keyboards & accessories			*Zorro adapters, graphics cards, LS120 & floppy drives*		
CASE-FT-1200	EZ-Tower case	119.95	ADPT-Z2-A12/1	1-slot Zorro 2 adapter	99.95
CASE-FT-KIT	EZ-Tower DIY option	99.95	ADPT-Z2-A12/7	7-slot Zorro 2 adapter	179.95
CASE-FT-EXKT	EZ-Tower DIY no PC case	49.95	ADPT-Z2-KBUG	EZ-KEY upgrade for Z2 adp	35.00
A12-MGK-EZTW	EZ-Tower w/ A1200 system	799.95	GFX-CV643D	Cybergraphics 4MB Z2 card	159.95
APC-CF1-EZTW	EZ-Tower w/ Pent PC syst	899.95	GFX-MONSW-AUT	AUTO-MON switch for CV643D	39.95
APC-SIA-UG	Siamese upgrade for abve	99.95	ADPT-GFX-SDBL	EZ-VGA 23p in-line scandbl	79.95
KBD-A4000	A4000 k/b intl 6p minidin	39.95	INT-12I-CD4	4-dev EIDE buff interface	39.95
ADPT-KBD-6P5P	6-pin mini to 5 pin adptr	6.95	DVR-EZIDE	Univ'l IDE/ATAPI dvr/enhan	34.95
KBD-WIN95	Win95 kbd 5p EZKEY compat	19.95	DVR-EZIDE-SP	EZIDE w/ INT-12I-CD4/LS120	17.50
ADPT-KBD-1200	EZ-KEY auto Amiga/PC 5pin	39.95	HD3-LS120	ATAPI 0.72/1.44/120MB FDD	99.95
ADPT-AUD-EZTW	Audio mixer Amiga/CD RCA	19.95	HD3-LS120-CT3	3 x 120 MB superfloppies	34.95
ADPT-SCS-EZTW	Squirrel int/ext SCSI adp	19.95	INT-12C-DSKPL	DiskPlus FDD i/f DD/HD/XHD	69.95
ADPT-DF0-TWR	Floppy extn cab & faceplt	12.95	INT-Z2-IDEPL	6xIDE(exp->10)+DD/HD/XHD FD	79.95
ADPT-DF0-FP	Int floppy drive faceplat	6.95	INT-SER-PPL	2 x 460Kbaud S + 800KB/s P	89.95
INT-FDD-DF0	EZ-DF0 Sony PC FDD i/f DF0	14.95	INT-SER-PJR	1 x 460Kbaud highspeed ser	46.95
FDD-INT-DRINT	Sony FDD w/faceplate/EZDF0	34.95	ADPT-HD-2/3	2.5"HD->3.5" bay & cab adap	12.95
PLUG-IEC	Rewirable PSU outlet plug	4.95	CAB44-2W-60C	2.5"HD 60cm cab 44-44 way	19.95

Eyetech Group Ltd
The Old Bank, 12 West Green, Stokesley, N Yorks, TS9 5BB, UK

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Next Day delivery to EC and USA/Canada. Worldwide deliveries in 2-7 days from receipt of faxed order and payment details. (eg SX32 next day to NYC £25.30)

UK m'land next day insured del'y charges: S/w, cables, buffered i/f £3; 2.5" drives, accel's, mem boards £6; manuals £7; 3.5" drives, modems, psu's £9.50; Twrs, CD+ (2day)£10

Ring/fax/email for other delivery costs

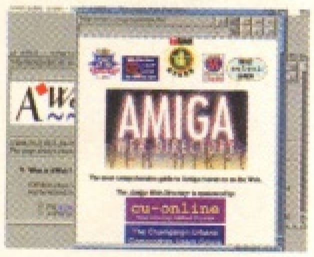
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Due to space limitations some of the specs given are indicitive only - please ring/write for further details. **Please check prices, specs and availability before ordering. If ordering by post please include a contact phone no.** Goods are not supplied on a trial basis. E&OE. All prices include VAT at 17.5%. VAT is not applicable to non-EC orders

AWeb II

Surf the Web on your Amiga! AWeb is a fully featured web browser

£29.95



Fusion

FUSION – The ultimate Software Mac Emulation

Runs practically all the latest Mac software. Latest System 8.0 support! (Macintosh ROM's required)
Why consider buying a Mac when the Amiga can do it for you (at a fraction of the cost)

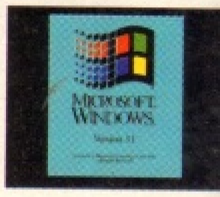


FUSION £ 49.95

PCx

PCx Advanced software only 80x86 PC emulation.

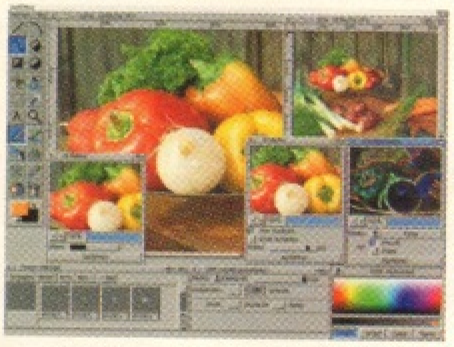




PCx

£ 49.9

Art Effect



ArtEffect uses the same concepts as industry standard Art packages and brings them to the Amiga. V2.0 now has Layers and Virtual Memory! The ArtEffect range can be further improved with the addition of add-on modules.

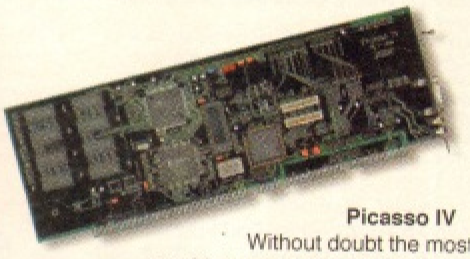
ArtEffect V1.5	£ 59.95
Art Effect V2.0	£119.95

Tornado 3D

Tornado 3D is a superb new Rendering and Animation package. Many advanced features! £179.95



Picasso IV



Picasso IV
Without doubt the most stunning graphics card yet for the Amiga. No wonde CU Amiga claimed this to be "The God of Amiga Graphics Cards!"

Integrated flicker fixer, 4Mb EDO RAM, Autosense Zorro II or Zorro III £249.9

Storm C

StormC V3.0 Base Package Non Commercial license	£119.95
StormC V3.0 Base Package Professional unrestricted license	£179.95
StormPowerASM V3.0	£ 99.95
StormWIZARD V2.0 – GUI creation	£ 69.95

Add-on Modules (All require Storm C base package)

StormC V3.0 - p.OS-Module	£ 49.95
StormC V3.0 - PowerUp-Module	£119.95
StormC V3.0 - PowerASM-Module	£ 69.95

(Call for upgrades for any of these packages)





MasterISO V2

MasterISO Version 2 is an advanced CD-R/RW system with an excellent new interface. Now with Track-at-Once and Disk-at-Once support, CD-Re-Writable support and full preuse system evaluation checks. Advanced Write manager and Audio manager functions are also included.

MasterISO V2.0 £ 59.95



Concierto IV

The Concierto is a 16-bit Sound module for the Picasso IV.

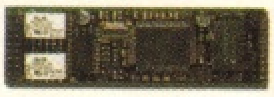


It's Yamaha OPL3 synthesiz supports 18 voices and digi playback and recording in mo and stereo. The Concierto boa two Midi connectors , AHI driv MIDI driver, Concierto Mixe Serial driver and ARexx support requires PicassoIV (firmware 4.1 or higher), Zorro/ISA mou for the I/O connectors, 68020 CPU or better (faster process for optimum performance) and OS 2.04 or better.

Concierto IV £ 99.95

Pablo IV

Pablo IV is the video encoder module for the Picasso IV. The encoded signal is suitable for use with VCRs, televisio sets and studio equipment, providing S-VHS or CVB (Composite) video mode Displays 640x480 an 800x600 (PAL B/G/I mod only). A time base corrector required for use with a ge lock. Requires a Picassol (firmware 4.1 or higher)



Pablo IV £ 69.95

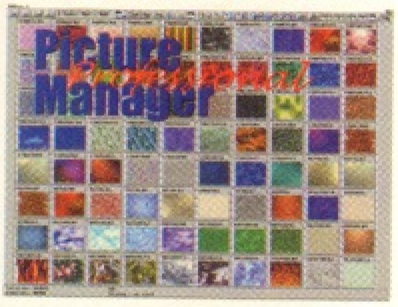
AsimCDFS

AsimCDFS - CD-ROM Reading software integrates CD-ROM technology into the Amiga operating system. AsimCDFS consists of AsimTunes, AsimCDFS, CDTV and CD32 emulation modules, FishMarket and a Preferences Editor.It provides access to ISO 9660, HighSierra, Rock Ridge and Macintosh HFS CD-ROM formats and supports SCSI CD-ROM drives (most SCSI controllers) and ATAPI CD-ROM drives on the A1200 and A4000.

AsimCDFS £ 49.95

Picture Manager Pro

All-in-one graphics tool for automatic picture organisation, format conversion, searching, printing, image processing, PhotoCD access and more!



Picture Manager Professional V4 £39.95

Catweasel II

The new Catweasel II controller fits both the A1200 and A4000. By utilising cheap PC 3.5" and 5.25" drives, Catweasel provides fast support for Amiga 880Kb/1.76Mb, MS-DOS 720Kb/1.44Mb/1.6Mb, Mac 800Kb/1.44Mb, Atari 10/11 sector, Commodore 1581,1541, Atari 800XL, Apple IIe and other disk formats. Supported by Fusion and PCx.

Catweasel II	£ 49.95
Catweasel II Zorro (also includes buffered IDE)	£ 69.95
Buddha Four IDE devices for the A4000	£ 44.95

Paloma IV

The Paloma TV module has two video-in channels for th reception of S-VHS and VHF/UHF (aerial) signals. It als generates video images on the Amiga workbench. All T images are displayed in a 24-bit window, and pictures can b saved and edited. The captured signal can be combined wit computer generated graphics The result can then be fed into th Pablo II thus producing a digita genlock.



Paloma IV £ 99.95

Monitor Adaptor (23-pin mon. to 15-pin gfx)	£ 14.95
VGA Adaptor (23-pin Amiga to 15-pin mon.)	£ 14.95
Floppy Drive 1.76Mb int. (1200/4000 1" high)	£ 54.95
Floppy Drive 1.76Mb Ext. (No patch!)	£ 59.95
PC Keyboard interface for 1200 Desktop	£ 39.95
PC Keyboard interface for 1200 Tower	£ 39.95
PC Keyboard interface for 4000	£ 34.95

8 Mb 72-pin SIMM RAM	£ 24.95
16Mb 72-pin SIMM RAM	£ 44.95
32Mb 72-pin SIMM RAM	£ 79.95
1.7Gb IDE Hard Drive	£129.95
2.1Gb IDE Hard Drive	£149.95
3.2Gb IDE Hard Drive	£179.95

8X IDE CD-ROM	£ 49.95
24X IDE CD-ROM	£ 69.95
IDEFix 97 - Buffered A1200 4-Way IDE I/F Includes registered Atapi software	£ 34.95

All Drives and CD-ROMs are bare units. Prices may fluctuate on Hard drives/RAM.CD-ROM units.

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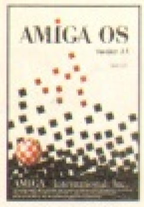
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£ 34.95

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Amiga OS 3.1

OS3.1 – Official Amiga OS Upgrade



Amiga 500, Amiga 500+, Amiga 1500, Amiga 2000	£ 39.95
Amiga 1200, Amiga 3000(T), Amiga 4000 (T)	£ 45.95

OS 3.1 ROM's only

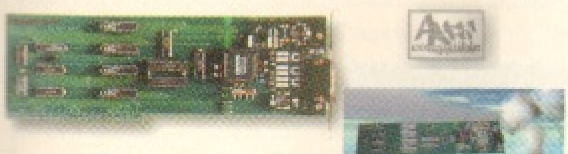


Amiga 500, Amiga 500+, Amiga 1500, Amiga 2000	£ 25.95
Amiga 1200, Amiga 3000 (Inc. Tower), Amiga 4000 (Inc. Tower)	£ 29.95

Prelude

Prelude

Zorro II 16-bit sound card with full AHI software support. £169.95



Genlock/DigiPen

MG10 Genlock



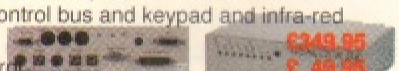
Supports VHS, VHS-C, Video-8 formats with precise settings of contrast, brightness and colour. Invert functions (i.e. Keyhole effects) and soft fading. £169.95

MG25 Genlock

All the functions of the MG-10 plus RGB Monitor switch, separate RGB colour setting, S-VHS, Video-8, Hi-8 and Alpha-Channel bypass. £249.95

BX Genlock

All the functions of the MG-25 plus Picture-in-Picture, Stand-by, External device control bus and keypad and infra-red control support £349.95



Infra-red remote control £ 49.95

Keypad (100 keys) £ 79.95

DigiPens



DigiPen 606 (15.24 x 15.24 cm)	£ 89.95
DigiPen 906 (22.86 x 15.24 cm)	£109.95
DigiPen 1212 (30.48 x 30.48 cm)	£129.95

Scandoubler/Monitor

Use high quality PC monitors with your Amiga.

Internal A1200 Scandoubler (Desktop/Tower)	£ 64.95
Internal Scandoubler (requires video slot)	£ 69.95
External Scandoubler (Any Amiga)	£ 79.95
14" Digital Monitor	£139.95
15" Digital Monitor	£179.95
17" Digital Monitor	£339.95



Ariadne Network

Fast Amiga networking. Zorro II card with additional parallel ports. Comes complete with Envoy software. £129.95



Amiga Computers and Towers

Infinitiv Amiga Tower Sytems
Officially licensed Amiga computers.



Infinitiv 1300
Infinitiv Tower, A1200 Motherboard, OS3.1, 200W PSU, Mouse, External Amiga Keyboard, Floppy drive. £349.95

Infinitiv 1400
As per 1300 above plus 5 x Zorro II, 2 x ISA, 2 x PCI and Video option. £499.95

Infinitiv 1500
As per 1300 above plus 5 x Zorro III, 1 x ISA, 2 x PCI, Video option, A4000 CPU slot and SCSI-II interface. £599.95

Infinitiv Kits-Z2

Tower with Z2 board	£249.95
Tower with Z2 board plus PSU	£279.95

Infinitiv Kits-Z3

Tower with Z3 board	£449.95
Tower with Z3 board plus PSU	£479.95

Component Parts

Infinitiv Tower + Keyboard interface	£129.95
Infinitiv Tower + K/B int. + PSU	£159.95
Z2 board: Zorro II x 5, PCI x 2, ISA x 2, Video (option)	£149.95
Z3 board: Zorro III x 5, PCI x 2, ISA x 2, Video (option), SCSI-II, A4000 CPU slot	£319.95

Infinitiv uprated PSU	£ 49.95
Infinitiv 3.5" "Snap-on" bay	£ 11.95
Infinitiv 5.25" "Snap-on" bay	£ 29.95
PCMCIA Angle Adaptor	£ 24.95
Infinitiv Video Slot Interface (State Z2 or Z3)	£ 39.95
Power Adaptor (for Non-Zorro Towers)	£ 6.95
External A1200 Keyboard case	£ 39.95
Windows 95 Keyboard	£ 19.95
Audio Slot Bezel (2 x Phono)	£ 19.95
1.76Mb Floppy drive (internal)	£ 54.95
CD-ROM Bezel	£ 4.95
IDE cable, 2.5" to 2 x 3.5"	£ 14.95
IDE cable, 2.5" to 2.5" + 3.5"	£ 14.95
3.5" device adaptor (Mount 3.5" in 5.25" bay)	£ 14.95

An extra 5.25" bay is required for any Infinitiv Zorro system if an A1200 accelerator is to be fitted. Additional hard drives/CD-ROMs will require extra cables. Both Z2 and Z3 boards require a Video slot interface to activate the video connector.

Tower Kits for the Desktop A4000 and A3000

Metal CE Approved Tower, Zorro III slots x 7, ISA slots x 5 (6 on 3000), Video x 2, (1 on 3000). PCI version has 3 x PCI and 3 x ISA

Tower 4000 PCI System (Tower and Zorro/PCI)	£339.95
Tower 4000 ISA System (Tower and Zorro/ISA)	£299.95
Zorro III/ISA/PCI/Vid (A4000 - board only)	£219.95
Zorro III/ISA/Video (A4000 - board only)	£179.95
Tower 3000 ISA System (Tower and Zorro)	£299.95
Zorro III/ISA/Video (A3000 - board only)	£179.95
Uprated PSU (state 3000 or 4000)	£ 69.95

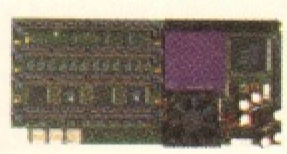
Accelerators - PPC and 68xxx

PowerPC 604e Accelerators for A3000/4000

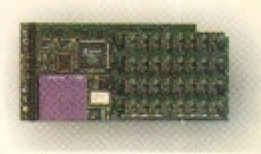
CyberStorm PPC-604	180 MHz	200 MHz
Companion CPU Socket	040 or 060	040 or 060
Max RAM	128Mb	128Mb
SIMM Sockets	4	4
SCSI On-board	Ultra-Wide	Ultra-Wide
Price (No CPU - State 040 or 060)	£539.95	£619.95
Price with 68040/25 fitted	£569.95	£649.95
Price with 68060/50 fitted	£759.95	£849.95
Registered Upgrade Price	£499.95	£569.95

PowerPC 603e+ Accelerators for the A1200

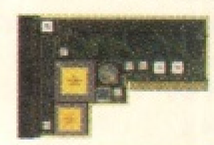
Blizzard 603+	160 MHz	200MHz	250MHz
Companion CPU Socket	040 or 060	040 or 060	040 or 060
Max RAM	64Mb	64Mb	64Mb
SIMM Sockets	2	2	2
SCSI On-board	SCSI-II	SCSI-II	SCSI-II
Price (No CPU - State 040 or 060 socket)	£289.95	£374.95	£439.95
Price with Price with 68040/25 fitted	£339.95	£419.95	£489.95
Price with 68060 fitted	£519.95	£599.95	£659.95
Registered Upgrade Price	£259.95	£349.95	£409.95



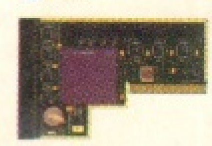
CYBERSTORM MKIII 68060 68060 Accelerator board for Amiga 3/4000 68060 CPU @ 50 MHz (66 MHz ready), Built-in Ultra-Wide SCSI (Requires SIMMs matching in pairs) £449.95



BLIZZARD 1230-IV 50 MHz 68030 Accelerator Board for the A1200 £ 94.95



BLIZZARD 1260 50 MHz 68060 Accelerator board for the A1200 £299.95



BLIZZARD SCSI SCSI-II Board for Blizzard 1230 or 1260 £ 59.95

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Trade enquiries welcome.

The Big Switch

No-one knows exactly what the future holds for the Amiga, but one thing we can be sure about is that it holds a change of CPU. We take a look into our crystal balls at the months ahead.

Since Amiga Inc. took on the job of bringing the now ageing Amiga hardware up to date, they have been faced with an unenviably huge range of opinions on what needs to be done. Just about the only universal theme they will have heard is the one we all know – the 680x0 must go. What exactly they should replace it with, by contrast, has probably been the subject of more differing opinions than anything else.

Since the inception of the Amiga line, Amigas have all been powered by a CPU (central processing unit) made by Motorola as part of their 68000 (68k) range. The 68000 was the pre-eminent chip of the early days of the 16 bit desktop revolution. Loosely related to the 6502 class processors used in the Commodore 64 and Apple 2, it was the obvious step up for computers such as the Apple Macintosh and Commodore Amiga that followed in their footsteps. 16 bit was a real buzz word, and the advantages to programmers of these processors was enormous. There were far more data registers than machine code programmers of the Commodore 64 days had been used to, and the instructions sets were more powerful. The 68000 ran at faster clock speeds and had twice the bus width for memory access of the older processors.

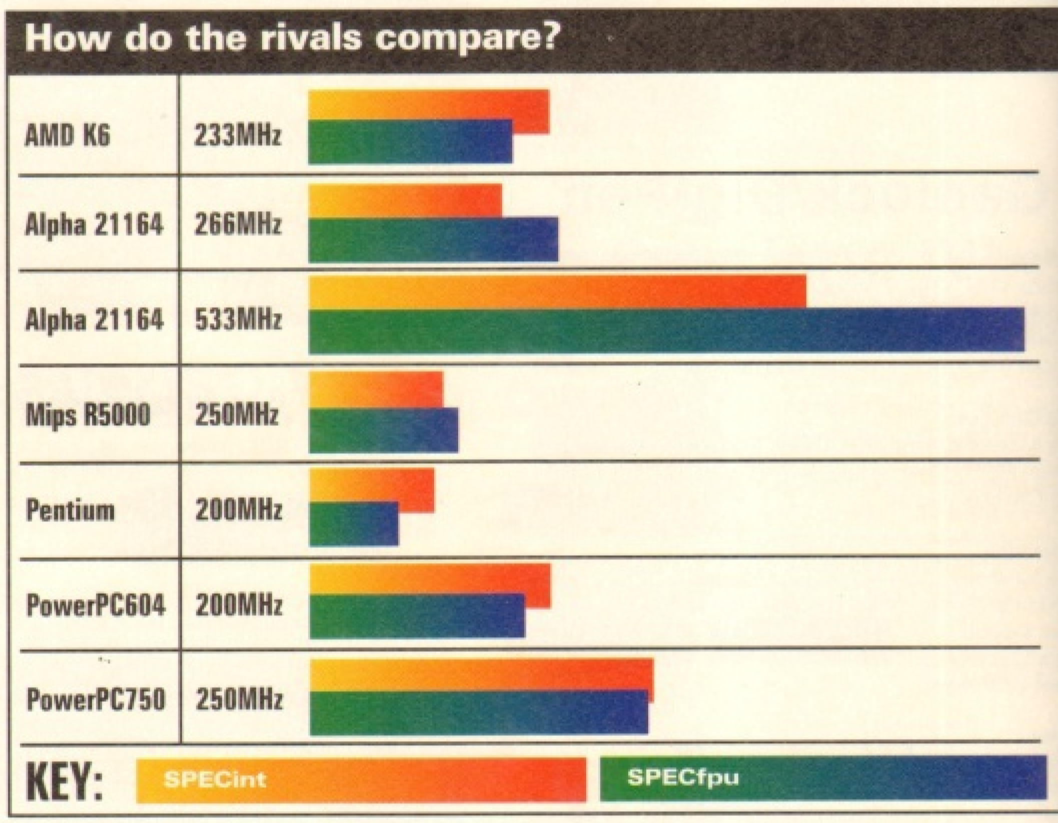


▲ **The AMD K6, a Pentium compatible Intel beater. Gateway are known to think highly of this chip, and it would give PC compatibility... but is this really an Amiga chip?**

No-one was going to let Motorola get away with winning the processor war, and before long the 7MHz 68000 in the A1000 and A500 was being rapidly overtaken. Motorola brought out new models in the processor family to match the opposition. The 68020 doubled bus width again to 32bits. The 68030 brought much improved architecture and manufacturing processes, allowing both greater efficiency and greater clock speeds, going up to 50MHz.

The 68040 integrated the floating point co-processor, a process which improved operation considerably. Changes to the instruction set allowed a few more boosts to performance. The 68060 refined the process even further, but never went above 50MHz in widely available form. Processors from other manufacturers have by contrast been developed so much further that it is increasingly difficult to buy a desktop processor running at less than 166MHz. Even the fastest 68k CPU is left trailing in the dust. Today AI are faced with the task of bringing the Amiga up to date, and first and foremost that means a CPU which runs at the kind of speeds other systems do. As there are no 68k series processors that run at those speeds, this means changing CPU. This isn't as simple as choosing one out of a catalogue and building the next Amiga around it, because it won't be compatible with old software.

The exact same problem faced Apple a few years ago. Having enjoyed a continuity of ownership the Amiga has not had, the infrastructure was in place to see the end of the 68k series of processors and plan for the future. The path that Apple took was for



The challengers: DEC Alpha

One of the leading choice for the next CPU has been the DEC Alpha processor, a high end 64 bit processor running at up to 600MHz. Normally used for high end workstation uses, it runs Windows NT and would certainly provide serious power.

Pros: Extremely fast, interesting multi OS potential. DEC's FX32 emulation allows 32 bit Windows code to be emulated very fast, although 16/32 bit software such as most Windows '95 programs won't run. Siamese Alpha has already bridged the gap.

Cons: No cheap version for low end models. Dubious future - Intel have bought into the Alpha technology, and commitments to development for five years isn't enough to ensure that the Alpha has a future as anything more than food for Pentium development.

● **Appropriateness: High** ● **Likelihood: Medium**

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The challengers: Coldfire

Coldfire is a direct replacement for the 68k series of chips in embedded systems uses. It utilises a more modern architecture for better performance.

Pros: Very, very easy to port old software too. Very cheap.

Cons: Too slow, no high end models. Too much work for minimal gains. Not really designed for the job and misses to many features important to a next generation CPU.

● **Appropriateness: Low** ● **Likelihood: Low**

The challengers: 200MHz+ 68080

Mentioned by Petro Tyschtschenko at Cologne.

Pros: No incompatibility problems. All Amiga software would run at great speeds.

Cons: Doesn't exist. The current Architecture is not appropriate for these speeds anyway. This story was the result of a misunderstanding - Petro actually pointed out how much easier it would make life if such a thing existed.

● **Appropriateness: Very high** ● **Likelihood: Not**

them the easy one. Motorola hasn't been twiddling their thumbs since designing the 68060, they have been working on a new line of processors using a fundamentally different approach than the 68K series. These are the PowerPC chips.

The real advantage with PowerPC for Apple was exactly that it was the direct successor to the 68K series. Motorola wanted companies to move over to the PowerPC series, and offered a lot of help to anyone doing so. For Apple, the most important thing they offered was help in persuading a PowerPC chip to emulate 68000 processor, so that it could run old Macintosh software. Thus, when the first PowerMacs were released, they were able to run all the favourite old software packages that hadn't been converted.

Even with this emulation, the path from the 68040 Macs of the time to the PowerMacs was a rocky one. The early PowerMacs were fitted with a PPC601 processor running at around 66 MHz, a processor barely faster than a 68060. Even the high level of emulation Apple had developed didn't allow software to run on it as fast as it did on the top of the line 68040 Macs.

It was only when the first few pieces of PowerPC specific software came out and ran much faster than the 68K versions did on the fastest 40MHz 68040 Mac Quadra that people really started to see the advantage. Now with the arrival of PowerPC chips in the much improved 603, 604 and 750 classes being the norm for Macs, even that emulation goes quite fast enough.

The PowerPC chips are of course one of the front runners for the new Amiga CPU. There are plenty of dissenting voices out there, but the responses AI has had from developers around the world has shown a clear majority in favour of the PowerPC. Regular readers will know that CU Amiga has championed the PowerPC chip in this for some time now, and has had some flak on this in the past. I can assure you that no-one at CU Amiga is getting backhanders from Motorola, it is simply that from where we stand we can see better than most how urgent it is we get a new CPU, and how appropriate the PowerPC chip is for the job.



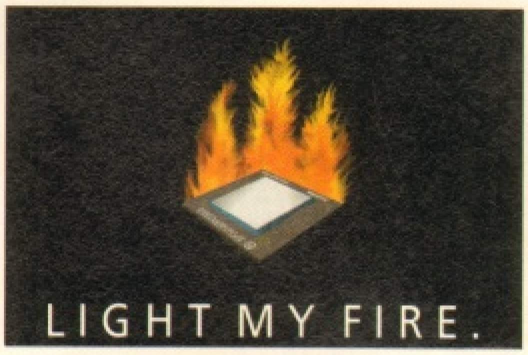
▶ A concept render of the PowerPC based A\box, an Amiga like computer from PowerUp company phase5.

The idea of migrating the Amiga to PowerPC is not a new one. Petro Tyschtschenko, the president of Amiga International, has favoured the PowerPC for a long time, and put a lot of work into the project back in the Escom days. The ill-fated Walker was meant to be quickly followed by a PowerPC card developed in co-operation with phase 5, but the collapse of Escom scuppered that plan.

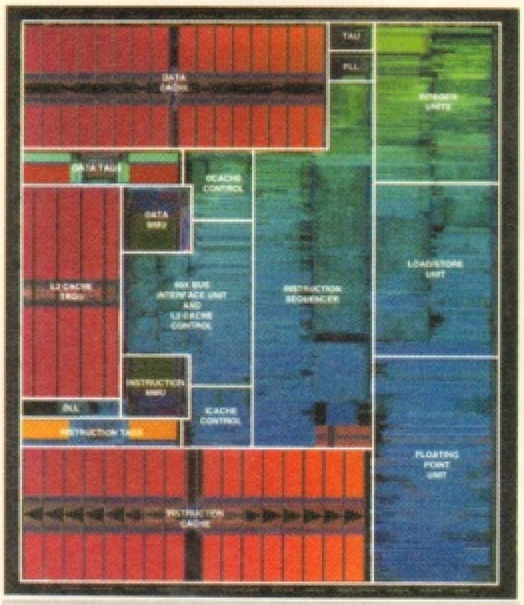
It is almost certainly the case that Motorola themselves have mooted the notion; there was a time when the Amiga was extremely important to them, and there is no doubt that they would have liked to see the Amiga convert along with the Mac. Perhaps most significantly, the PowerPC has the advantage over any other rival of actually being here already, and now that we are so far behind, we can't afford to start from scratch. Pios and phase 5 have shown the way with PowerPC developments, and whether you are an advocate of the PowerPC or not, you have to admit that having PowerPC Amigas here and now is the strongest argument of all.

I'm going to stick my neck out and say that AI almost certainly will pick the PowerPC as the next Amiga CPU. Alas there are more hard choices to come. In the unlikely eventuality that AI do opt for an alternative CPU, the same basic question has to be answered - how should it all work?

The obvious answer would to be to do exactly what Apple did and go completely over to PowerPC. Doing this would require two major pieces of software to be written, an Emulator and a backwardly compatible PowerPC version of the OS. Going this route would mean that all system legal Amiga software would run transparently on the new machines. A lot of 68K code would run rather unimpressively, but with the OS fully converted it shouldn't be a problem. New programs could be written in pure PowerPC



◀ Phase5 have a next generation RISC processor for the Amiga already, the PowerPCchip and the Powerup project.



◀ Mask overlay for the ultra high end PowerPC 750 with schematic. This is the architecture which is evolving towards gigahertz speeds.



◀ Distant outsiders the StrongARM, from the same stable as Alpha. Used in the British Acorn computers.

code and would have no bottlenecks in the system at all, allowing them to run at phenomenal speeds.

Interestingly for this approach, development of the emulation should be relatively straightforward, as Motorola have a lot of experience with the process. According to certain rumours, an early unstable 68K emulator that runs on the phase 5 PowerUp cards has been made. Unfortunately, re-writing the OS would be a major task, and one which would delay the process significantly.

phase 5 have come up with a simple but fool proof solution to the "legacy problem", the issue of retaining full compatibility with old software. Their PowerUp PowerPC boards are dual processor cards. That means that 68K code can be run efficiently on the 68K chip, and PowerPC code can be run efficiently on the PowerPC. The complexity of this is that the two processors have to share the memory and resources of the computer without getting in each others way. phase 5 wrote the ppc.library which allows the 68K CPU to communicate properly with the PowerPC and schedule resources correctly, but to confuse matters, Huge & Partner have release the rival WarpOS system.

The distribution of WarpOS has been controversial. Claim and counter claim from parties involved or otherwise has made the matter somewhat murky, but in essence Haage & Partner claimed that WarpOS did the job of the phase 5 ppc.library, only better. phase 5 inevitably disagree. According to some unbiased sources WarpOS is better, according to others ppc.library offers the best solution. In part the differences come down to the way that the mutliprocessing is done, but there are also some fundamental differences in opinion on the two approaches.

Advocates of WarpOS cite the availability of a specific Amiga Compiler, StormC, while followers of phase 5 point out that the GNU C++ compiler that will function with the ppc.library isn't an expensive commercial product. As for which is faster, no-one can say for sure right now.

It would seem likely that one of the major sources of disagreement is caused by differing notions of what is important. phase 5's approach seems to point towards their own future plans – they believe their solution is the only one that will allow the proper functioning of multiprocessor units utilising several PowerPC chips at once for blisteringly fast performance.

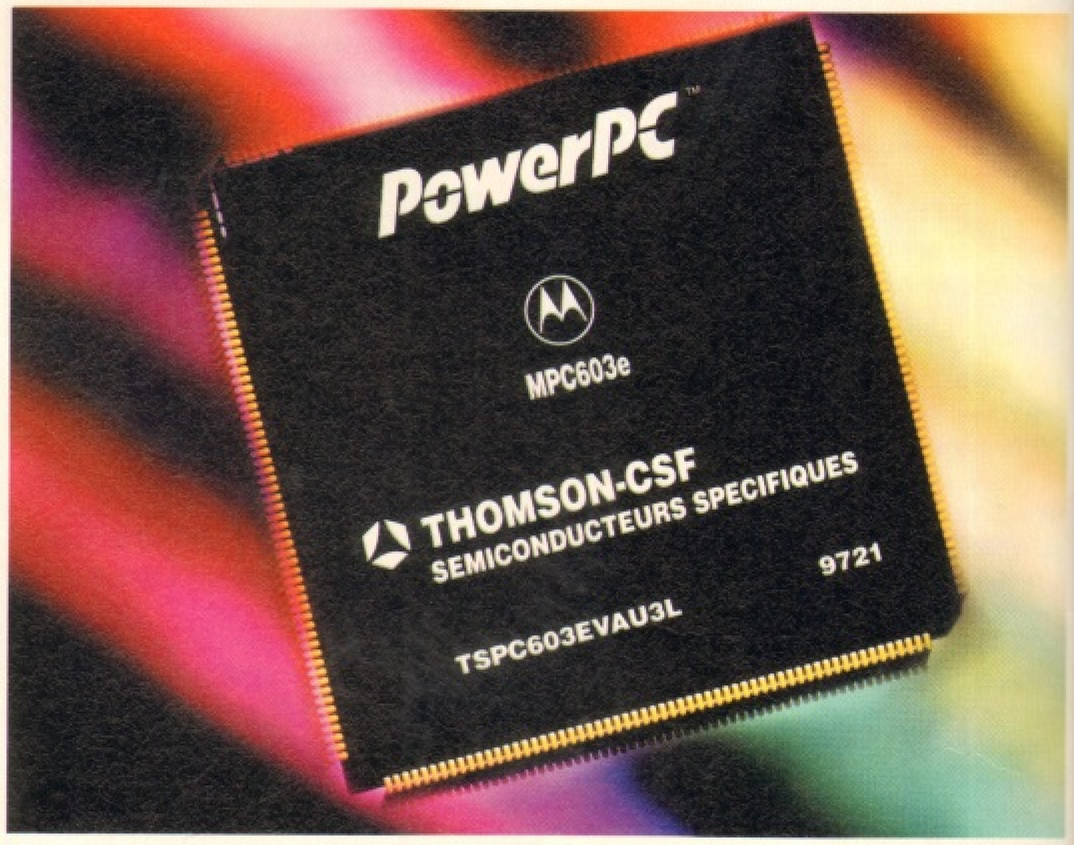
The challengers: Mips

A dark horse outsider, SGI Mips chips are used in everything from Nintendos up to the world's fastest computer, a 64 processor computer based on the R10000 processor running at an astonishing SPECint of 5704.

Pros: Good range of chips, low end models available at extremely good prices.

Cons: Not a popular choice, more purely graphics workstation oriented than all round desktop computing.

● Appropriateness: Medium ● Likelihood: Lowish



▶ **A low end cheap but powerful PowerPC 603e as used in the A1200 PowerUp cards. This one is made by French semiconductor giant Thomson-CSF, one of three huge manufcturers making PPC chips.**

Their championing of the ELF hunk format, a UNIX standard rather than an Amiga one, was certainly made with more than half an eye to the development of their own "Amiga like" A\box, for which a Unix core has been specified. However it is certainly a more portable format than the more Amiga hunk format used by WarpOS, and allows the use of cross platform compilation. SAS/C for the PPC is also in development. Haage & Partner's solution by contrast requires the use of their own commercial compiler, StormC. It has gathered support from people currently most interested in getting PowerPC software running, and running very fast, as soon as possible.

H&P make a point of the ease with which StormC allows code cross compilation under WarpOS, and even showed a cross compilation of Quake running at impressive speeds on a PowerUp card. The interest in WarpOS may have been helped by the fact that Haage & Partner have been actively courting developers, whilst phase 5 have let the ball drop a bit lately on developer support, some registered developers complaining that they have not yet been given the latest versions of the ppc.library.

Fortunately this rivalry is not looking nearly as worrying as it was at first. phase 5 were notably and understandably upset when they learned that WarpOS and ppc.library tasks

The challengers: PPC

Follows the Motorola legacy. A continually developing line of processors central to Motorola's massive Semiconductor business.

Pros: Good range of models at reasonable prices. Ultra fast versions in the the 1 GHz region in development. Good 68K emulation. Perfect Mac emulation a major selling point. The most popular choice. PowerPC software and hardware already exists. Likely that a lot of support would come from Motorola. Apple may be moving away from PowerPC which may open opportunities.

Cons: Better price performance ratios do exist, Apple may be moving away from PowerPC which may limit opportunities.

● Appropriateness: Very high ● Likelihood: Very high

could not be run without the machine being reset in between, but Haage & Partner tell us that this rather major bug has been fixed. Relations are improving between the two companies and there is no reason why it should not be left up to the developers which library they use, if the two libraries can happily work together. Of course if Amiga International step in and decide to go for PowerPC, they will be the ones who decide the fate of the two rivals. Several other companies looking into PowerPC cards have looked hard at the possibility of licensing WarpOS for their own projects, but if AI goes the multiprocessing route, they'll probably want to take on one of these solutions and make it official.

Even then, there are a lot of choices left. No-one wants the Amiga Market to fragment, but that is no reason why more than one CPU should get in on the act. Amiga software houses aren't going to write five versions of all their software, but a huge interest has been expressed in moving the Amiga to more than one CPU platform. This could be perfectly compatible with the notion of moving to PowerPC lock stock and barrel by doing this with a not dissimilar form of multiprocessing with some other CPU. This is in fact what we can already see in things like the excellent Siamese System which can integrate an Amiga with Pentium or Dec Alpha computers, and certain developments by Index Information, amongst others. Whatever the future holds for he Amiga's CPU of the future, you can be sure of one thing... it is going to be very fast! ■ **Andrew Korn**

The challengers: Pentium

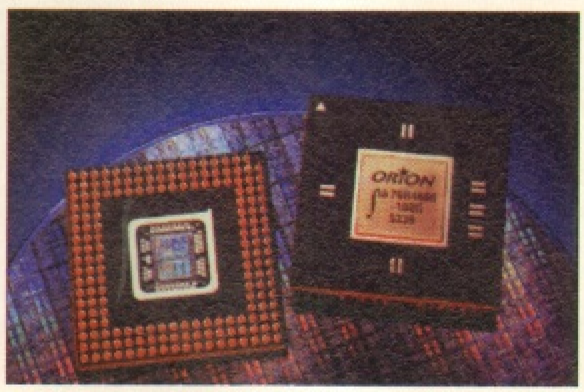
The processor behind the PC, much strengthened by the release of compatible rivals from AMD, Cyrix and Centaur which shave a lot off the price, and notably in the case of the AMD K6 which contains valuable technological advantages.

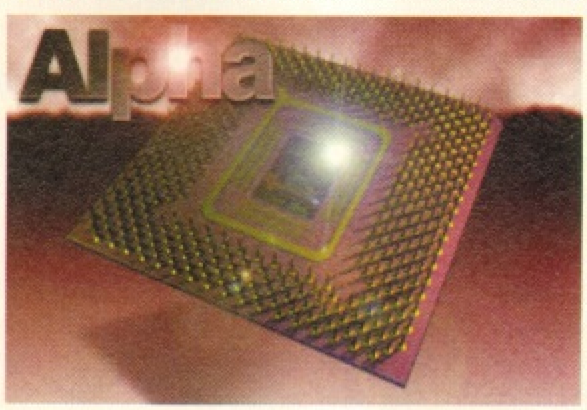
Pros: Very competitive prices, able to run Windows software for 100% PC compatibility.

Cons: Poor performance, limited clock speeds, quarter the number of registers available to programmers than most rivals, unpopular and a poor rate of instructions per clock cycle compared to modern fully RISC designs. An unpopular choice. Why not just make PC clones?

- **Appropriateness: Medium to Low**
- **Likelihood: Low**

▼ **Two nice meaty RISC CPUs with a lot going for them – Silicon Graphics MIPS and DEC Alpha.**





The challenger: Stalking horses

There are a number of other processors which have an outside chance. Processors such as the StrongARM, the HP-RISC, the Sun SPARC have their qualities and their proponents. The StrongARM, used in the current generation Acorn computers has a solid reputation but a dubious future for the same reason as the Alpha – it is made in conjunction with DEC. The HP-RISC has some extremely good engineering behind it but is at the end of its lifetime with the Intel/HP IA-64 to replace it, and the SPARC is rather firmly founded in the workstation market.

Amiga Forever

The title proclaims the intent: Amiga Forever! But will this commercial PC emulator for the Amiga ensure its survival or toll its doom? We take a look at the preview release.

■ **Price: £19.99, redeemable against full release**
■ **Publisher: Cloanto** ■ **Supplier: Weird Science ✆ +44 (0)116 246 3800**

You may well have heard of UAE, the Amiga emulator. It has wandered around in various forms for a while now, and has made it to PC, Unix and Mac. Emulation is normally considered one of the strong points of the Amiga, but emulation of the Amiga by other computers has been fraught with problems.

The Amiga uses a set of custom chips which complement the CPU. While an Amiga emulating a Mac need only emulate the code functionality of the Mac's CPU, an easy task given they use the same one, the MAC would have to emulate not only the Amiga's CPU, but all those custom chips as well.

Often cruelly termed the 'Unusable Amiga Emulator', UAE has until recently been good for playing ageing games at slow speeds. Three things have happened to change that. Firstly, the absurd power of modern CPUs mean that PCs are more capable of doing something like this.

Secondly, UAE Picasso '96 turned up offering the option of retargetting P96 screens onto the Windows native graphics system, which removes the major overhead of emulating the graphics chip set. Thirdly, Cloanto have picked up the product and are marketing it professionally.



Hot gossip

The announcement of the release of Amiga Forever caused some heated debate.

Cloanto have licensed the Amiga ROMs from Amiga International, so for the first time PC owners will be able to use Amiga emulation without pirating the OS. In some circles, this was considered tantamount to a betrayal, an admission that the Amiga is dead. After all though, isn't it dead systems that get emulated?

The answer when you think about it is of course not. We emulate Macs, they aren't dead. We emulate PCs, they certainly aren't dead. Emulation opens up new options to the users of an alternative computer, and surely it can't be a bad thing if all those PC users out there get a chance to try out an Amiga?

Cloanto have interesting plans for the future of Amiga Forever, and if you want a peek, you can – they've just released a preview CD. Although lots needs to be done to turn UAE into a polished product, there is quite a lot to look at already. Cloanto warn about preview is released ahead of schedule to satisfy the "... strong interest expressed by users after the original announcement of Amiga Forever..."

> **"At the end of the day, the only people that will buy this product are ex-Amiga owners. Amiga Forever is no match for the real thing"**
> **Vince Pike, Epic Marketing.**

This basically means that the installation is hopelessly broken in this early release. I fail to see how gaping flaws with the installation were not addressed given Cloanto's normally superb standards of presentation.

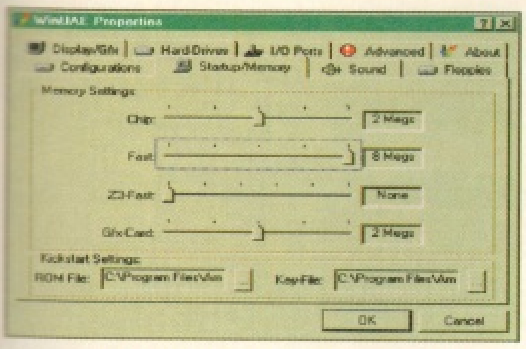
Luckily there's an update patch which makes the installation procedure work and quite frankly you'd be struggling, to say the least, without it. We got this just too late to put it on the cover CD, but expect it there next month.

ROM key-file

After the patch, which is a new installer and Picasso 96 driver, Amiga Forever works properly and the emulator can be launched from the start-menu into various useful modes such as WinUAE, Picasso96 and WB 3.0 which is the most useful unless you're wanting to run old games. Unlike previous versions of UAE for DOS and Unix, WinUAE now has a front-end GUI to set up the various options, a vast improvement over the convoluted command line switches needed in the past. Interestingly Amiga Forever requires specification of a 'ROM key file' as well as the Amiga ROMs. OS 1.1, 1.3, 2.0 and 3.0 are provided but not 3.1. The ROM images are encrypted and useless for anything unless used with UAE and the ROM key-file.

Another improvement in the latest WinUAE is that a PC directory can be specified as a hard drive – previously only disk





What does it support?

WinUAE also sports audio emulation although the AHI support isn't implemented yet. The author points out that there isn't a great deal of AHI support on the Amiga anyway and I have to agree it doesn't seem a priority. I/O support is quite comprehensive - Miami happily fired up and got a nice 115200 baud connection to an ISDN. Web browsers and IRC clients ran perfectly under Picasso 96 too.

Version 2 is due to have full parallel support for the Weird Science Network PC linkup cable, as well as ethernet options. What it most noticeably doesn't support is Amiga floppy disk drives, a fundamental hardware problem. Users of both platforms can use 720K discs and CrossDos, but others may have difficulties. Some concern has been voiced that this could lead to increased piracy. CD-ROMs can, of course, be read.

> **I believe in the networking possibilities more than I believe in the WinUAE emulation because it keeps people using their Amigas.**
> Dave Law, Weird Science

images and hard files (ala ShapeShifter) were accessible. This new method makes importing of Amiga files for WinUAE a complete doddle now that the PC can access the Amiga's drive. The hard drive directories that Amiga Forever installs are a stock (horrible) Workbench 3.0 set-up albeit with Picasso 96 installed for the native RTG.

Cloanto plan to remedy this with a nice well configured Workbench for version 2, and to this end we have forwarded them a copy of last month's Workbench 2000 feature! At least Personal Paint 7.1 is provided on the CD and, after the v1.1 patch, ran straight off with Picasso 96 emulation. Hooray, a proper paint package running on a PC! (Oh Cloanto, how about running ARexx as standard?)

> **It's no Amiga**
> Joe Torre, Senior hardware Engineer, Amiga Inc.

Picasso 96

When running the Picasso 96 enabled version of WinUAE, the graphics go via the Picasso 96 RTG system to a UAEGFX monitor driver which hooks into WinUAE to provide native PC graphics drawing. Understand? You don't need to, the net result is that the display and overall emulation is a hell of a lot faster than before, but sadly the CPU emulation performance remains absolutely dire. Sysinfo reported 1.06 MIPs on my high end MD K6 225Mhz based PC.

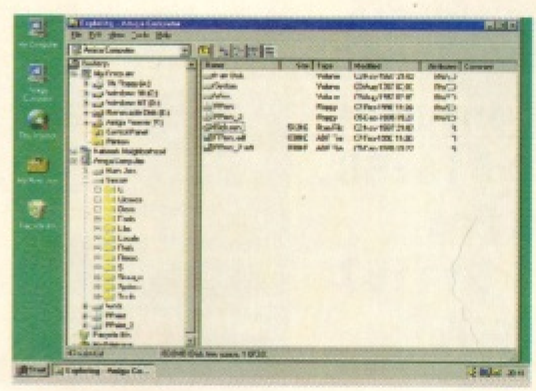
Obviously without emulating the display chipset there's great room for improvement over this sloth like score, slower than an A1200 with fast memory. Certainly PC emulators running on the Amiga are a very great deal more efficient than this! The future of UAE has to involve canning custom chip emulation and more hooks for native 80x86 libraries and drivers for AmigaOS. Basically WinUAE faces all the same problems of AmigaOS taking advantage of a foreign CPU just like the PowerUp project.

Just as important as the display speed improvement, with Picasso 96 the colour depth was just like an Amiga graphics board rather than being limited to ECS' pathetic 16 colour 'hi-resolution' display. Yes folks, WinUAE only emulates an ECS chip-set, no loss with Picasso 96 however, since you get higher resolution and deeper colour depths than even AGA offers anyway. The ECS emulation is good enough that those old classic games will indeed play nicely on a nippy PC. Even the ultra-hacky demos will have a good go at running. It might only be ECS emulation but it's damn good ECS emulation. In fact I've used plenty worse real Amigas, certainly in the display department. One niggle, it would be nice to be able to run Picasso 96 emulation in a window rather than full screen, this is only possible with the ECS emulation.

An interesting thing to keep in mind is behind that rather poor emulated 68K virtual processor, there is a real processor trying to get out. This leaves the door open to the possibility of multiprocessing between the virtual 68000 and the Pentium chip beneath. The phase 5 PowerPC cards use this approach to get around the compatibility issue, and something similar could be done with Amiga Forever.

Plug in possibilities

There is no reason why you should not run Amiga software which has plug-ins operating on the Pentium side, and this is indeed what Cloanto have planned for the future. Just as they have released the PPC blitter plug ins for PPaint, they will in the future release one for the Pentium. Although you won't get the same advantage (the Pentium is already busy emulating 68K code while the PPC isn't doing anything unless you ask it) having at least part of the code running natively would offer a significant speed increase.



◀ Amiga Forever and the host of extra files... Windows 95 gets ready to run Workbench 3.0.

In theory this could lead on to more and more improvements. It should be possible to write more commonly called libraries in Pentium code to improve the performance of UAE. With a Pentium native version of Intuition and Exec, Amiga Forever would actually become quite a decent little system. One can't help wondering if Cloanto have half an eye on a sort of back door to porting Amiga OS to the PC. All this is speculation, however.

Amiga Forever is certainly a step in the right direction. The core functionality is certainly good enough to run a good Amiga system but the performance still needs improvements if it's going to tempt anyone to run applications on it full time. Cloanto promises much for the future though, including a TCP/IP stack interface to Windows, that means UAE can borrow the PC's internet connection too.

That'll be very handy, imagine AmFTP and Netscape on the same screen! If the future also holds performance improvements and Amiga Forever is provided with a half-decent Amiga system, we might have a real Amiga-on-a-CD which could gain the platform new users. Right now, it's a damn good try out. Time will tell if this route holds more in store for the Amiga. ■

> **the only negative things I ever heard about Amiga Forever are about people who never saw it. I respect this, but I think that all users who have to use a PC at work, or a PC next to the Amiga at home, for example, deserve the same respect.**
> Michaël Battilana, Cloanto



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ScreenScene

Welcome to one of the most exciting Screen scenes we've had in years. Some huge game releases await your delectation, including two of the highest scores in ages. Also a report from the Italian games scene, and the usual mix of tips, hints and news!

Reviews



Myst 42



OnEscapee 38

Game Italia

No-one quite knows why, but some of the very best Amiga games have come from Italy lately. Big Red Adventure, Shadow of the Third Moon, the amazing Golem... but there's a lot more. Massimo "Maxime" Marino of "The Games Machine", the biggest selling Italian Amiga/PC games magazine has the full story.

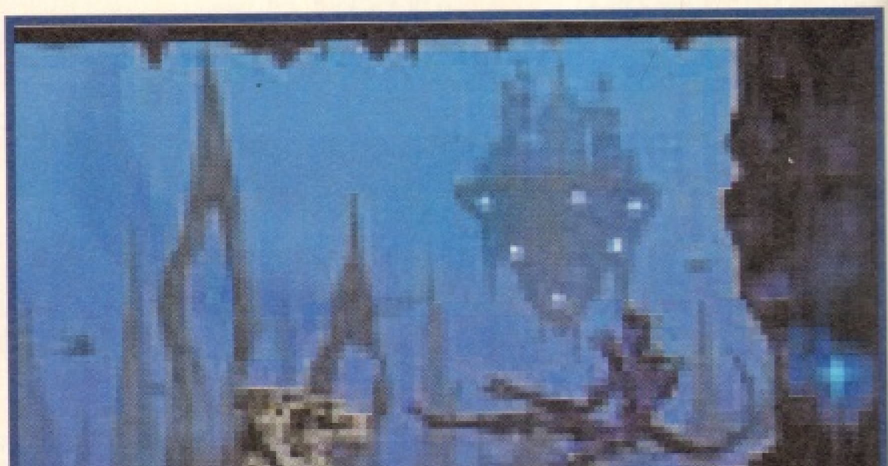
The Italian Amiga market is going through a peculiar period due to general uncertanties about the future of Amiga. Never- theless Italian users are keeping hopes alive; the first "Pianeta Amiga" show (Empoli, 20-21 September 1997) and seventh "IPISA" conference (Milano, 29-30 November 1997) confirmed that our optimism is still high and Jasa Comms are going to organize the 2nd edition of "Pianeta Amiga" in April, following the popularity and all the software/hardware sold by the companies present at the first.

Big Surprises

On the games scene, Italy (the country where Breathless, Shadow of the 3rd Moon, The Big Red Adventure, Fightin' Spirit and Virtual Karting were born) is planning several surprises in 1998.

The most ambitious project is surely Underground Software's Golem, which you will hear a lot more about before it gets released sometime after June, but the other games are not less important.

Darkage Software is trying to organize something like the F1 Licenseware circuit in Italy, and is soon to release a high quality shareware game called Alive, a classic arcade blaster with a fast and frenetic two players mode. The second Darkage game will be a Sega Rally clone – I have just tested the 3D rou-



▶ Olofighter from The Real Ologram – Beat 'em up in more than 4000 colours.

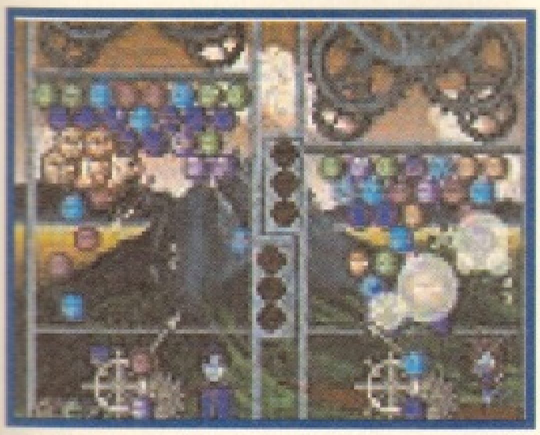


▲ Alive – Manic all action shareware blaster.

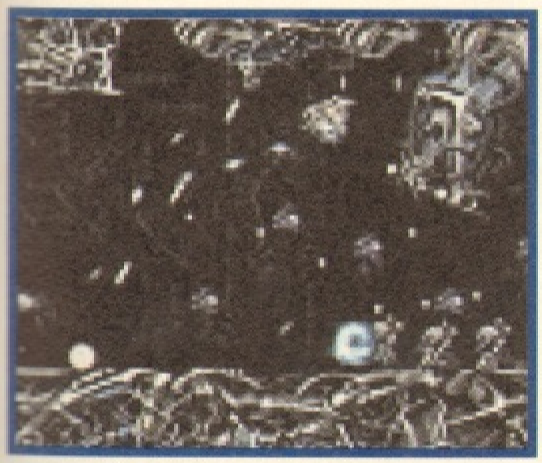


▲ Quiet Please Tennis, from the Spooky Fellows.

tine and it's absolutely great! It could be published commercially if it maintains current promise. Do you remember Fabio Bizzetti's Virtual Karting? Well, Fabio finished a Deluxe version many months ago but he is still waiting for a company to publish it. Meanwhile The Spooky Fellows are working hard on Quiet Please Tennis in order to finish a playable demo and find a publisher after some delays in development caused by university exams and long nights spent in front of a PlayStation.



▲ Puzzle heroes – classic puzzle action.



▲ Trauma Zero from... er, Trauma Zero.

4500 colours

Trauma Zero team is coding a nice and well coloured shoot'em up called Trauma Zero (original, isn't it?) that features a PAL overscan video resolution, more than 256 colours, 1/4 pixel scrolling, two players at the same time and a big number of sprites, while The Real Ologram team is shortly going to release a playable demo of Olofight, a cool beat 'em up that features 4500 colours at the same time, 3D graphics, animated backgrounds, shadow effects and musics that follows the progress of the combat.

During the "Pianeta Amiga" show, Hurricane Software presented two games they're working on: Eat the Whistle and Escape Towards the Unknown, a Sensible inspired soccer game and a graphic adventure respectively, the latter originally coded in AMOS but now completely rewritten in C language in order to facilitate the eventual porting to other operating systems. To conclude this short item about the Italian games scene, I would like to tell you about the newly available Powerball by Skywards Software (authors of the mad Mikro Mortal Tennis), a simple puzzle game with 80 levels of increasing difficulty (and if you think they are not enough, you can create your own levels with a complete editor) and the development of Bubble Heroes by Arcadia Developments, an interesting Puzzle Bobble / Puzzle Fighter clone featuring shoot'em up elements, 512 colours, lighting effects, 64 pixel AGA sprites, animated backgrounds, super deformed anime style graphics and three different playing modes. I think that's all... for now! ■

Massimo Marino

News

Scholarship Odyssey



Peter Spinaze, the developer behind Vulcan's excellent new game Final Odyssey has won a scholarship to Silicon Studio, one of the world's leading Digital Arts training facilities.

Proving the value of the Amiga as a creative machine yet again, it is in a large part for his superb graphical work on Final Odyssey that Peter won this scholarship. He will be studying 3D animation using Alias Wavefront on Silicon Graphics systems. It's a pity that he couldn't be studying on an Amiga, but congratulations are certainly due to the Australian graphics meister.

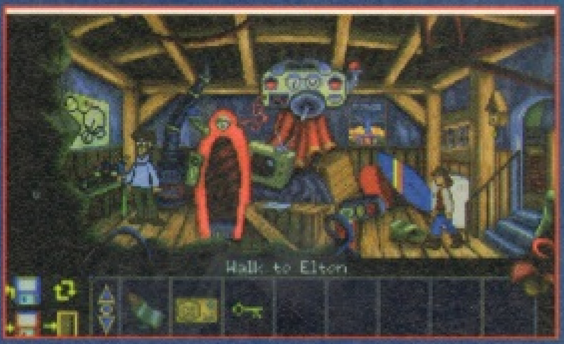
More Sadeness Signings

Sadeness Software have announced the signing of two new games, Dafael: Bloodline, and Forgotten Forever. Dafael: Bloodline, formerly known as Child of Darkness, is a top down RPG with Streetfighter like sequences thrown in and a graphical style strongly influenced by Japanese manga. Forgotten Forever is the long - awaited Command and Conquer clone from Charm Design. Sadeness have been favourites to sign Forgotten Forever since they signed up Invictus Team's superb OnEscapee, reviewed this month. Charm Design and Invictus are old friends.



Two from Alive

Alive Media Software, the company behind Blade, have also signed up two new games titles, the bizarrely named Tank Goblins, and the even more bizarrely named Gilbert Goodmate and the Mushroom of Phungoria. Tank Goblins is a 3D shoot 'em up with the normal slew of fantasy denizens such as orcs and goblins who, as the title would tend to indicate, are at war with each other using tanks. GGatMoP is a Monkey Island style graphic adventure which is already looking very impressive indeed.



OnEscapee



■ Price: £29.95 ■ Developers: Team Invictus ■ Publisher:Sadeness ■ Available from: Weird Science

The confusingly titled, Flashback inspired platform puzzler OnEscapee has arrived at last. Does it live up to all the hype and expectation?

Some years ago, French games Software house Delphine redifined the idiom of the platform game with the near legendary Flashback. Eschewing the trend for Italian plumbers, blue hedgehogs and high speed gameplay, Flashback put you in charge of a man stranded on an alien world. Flashback was the game that introduced the world to the narrative platform game, in which thought is more important than reactions and the nature of the challenges presented to the player change to suit the development of the storyline.

The platform genre has since developed along a rather different path. Delphine' Fade to Black, a de facto sequel to Flashback, lead the way into the kind of 3D adventure which has reached its apex – in terms of popularity, at least – in Tomb Raider. The history of computer gaming has left it to two Hungarian friends, Akos Diviansky and Tamas Kozak, to bring the 2D platform puzzler into the last years of the 20th Century. The good news for lovers of those great games of the past is that they have done it with an impressive degree of craft.

Bladerunner

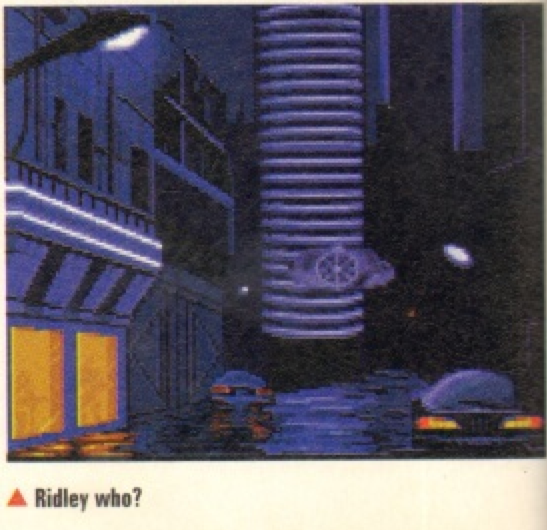
The first thing that you will notice about OnEscapee is the intro sequence, an impressively atmospheric, Bladerunneresque piece. All to often intro sequences are nothing more than a short, irrelevant animation that you won't want to see twice; not in the case of OnEscapee. OnEscapee turned up in the same month as Final Odyssey.

The latter has an abysmal rendered intro sequence quite at odds with the well executed cartoony graphics and rather excellent game which follows, while OnEscapee's intro sequence is a superb prologue to the narrative of the game. Like the in–game graphics, the intro is mostly hand drawn. It is stylised, very film noirish in execution. An unusual touch, a theme tune with vocals, adds moodiness.

The plot is certainly very cliched – alien visitors abduct the hero for reasons unknown, he struggles and the the flyer they are in crashes. He survives, but must now escape his mysterious alien enemy. The direction, however, is superb. The cut scenes, the clever effects and the dark soundtrack foreshadow the game beautifully – stylistically so similar to the experience of the game that it all segues into the first screen seamlessly.

Although the plot has strong overtones of Flashback and the character animation is almost identical, the gameplay actually has rather more in common with Flashback's predecessor, Another World. Delphine's earlier offering was less of a platform game. It was not entirely succesful for the simple reason that the more varied gameplay style meant each level used a lot more memory compared to the more homogenous gameplay of Flashback, and as a result it was far too short. In the era of CD-ROM entertainment, storage capacity is really no concern. As you play OnEscapee you find all the standard moves complemented with a lot of dynamically interactive extras

It would spoil the plot to give away too much about these extras, but to illustrate the way the gameplay flows, I'm going to have to give away a bit. Unless you are desperate to play through the whole game without help, skip to the box entitled "In the beginning", I'm only going to reveal enough to get you through the first couple of minutes of play.



▲ Ridley who?

Monkey Puzzle

Getting the puzzles in any adventure game right is an incredible balancing act – make everything too intuitive and the game is too easy, make it too obscure and the game is unrewardingly hard. The reason why the Monkey Island games, or Flashback/ Another World are respected to this day, is that they did this so well – but everything is flawed.

Anyone who's played one of these games can probably remember one puzzle they spent hours on, only to discover the solution was something so irrational there seemed to be no reason to try it. It would be a worrying thing if you didn't get stuck in OnEscapee; otherwise you'd fly through the game far too easily. Indeed on one or two occasions while playing OnEscapee I did get stuck, and no doubt anyone else playing it would find the same, if perhaps in different places. I suppose only time and the opinions of thousands of players will decide for sure whether Team Invictus have acheived this well enough to elevate OnEscapee to the level of the other games mentioned, but to my own debatable logic the balance was extremely good if not quite classic.

As I got into the logic of the game, and made my way past the first few levels, I worried that there wouldn't be enough of the game to last. Luckily, as the game progresses it also gets more complex. The first level has only a handful of screens, the epic city level has something like a hundred. You may think the game is passing too quickly, but look at your watch and you could find that you've become a little more immersed in the atmosphere than you thought. Like all games of this type, I'm sure that once you have finished playing you'll be a little disappointed that there isn't more, but even when you know exactly how to solve the game it should take a few hours to work your way through.

Certainly I spent more time playing this than is usually spent on a game being reviewed, but even with save positions handily provided I'm left with areas unexplored and bad guys as yet undefeated. I'm sure I will be back to finish this game in my spare time! A small scattering of logic games help the game last, but are something I remain ambivalent about. I imagine getting stuck on one for too long would be very annoying.

Nice Icon

OnEscapee is an impressively well produced title. Even the CD icon impressed me, a nice NewIcon of the Logo with a drop shadow, lovely with transparency on. The simple but useful text file is present in a huge range of languages – this is the first game I have come across with instructions in Farsi – and is present in HTML web format also. HTML pages are likely to be the multimedia replacement for Amigaguide documents in the next generation of Workbench, so congratulations to Sadeness getting in on the act quickly and well.

The big congratulations should be saved for Team Invictus, for the presentational detail that has gone into OnEscapee. Playing the game is quite an experience. The graphical design of the game is simply superb, and the music beautifully integrated and totally atmospheric. The game is packed with clever graphical tricks, not just animated background detail, but things which interact with the player, such reflection of the main character in the rippling surface of the water level. Cut sequences appear throughout the game and do their job well, the innumerable death sequences making a particular impres-



◄ Just some of the lovely scenery you get on your tour of OnEscapee. I hear that Thomas Cook are sending their reps...

In the Beginning....

... craft sent by your mysterious enemies to zap you. You are hemmed in, by a fence on one side and an electrified pylon on the other. If the flyer catches up, it fires a beam of energy at you which knocks you flying. Let it hit you a couple of times and you die horribly.
Let it hit you once, in just the right place, and it will blow you clean over the pylon. You keep running, and after a while find a downed car to shelter in. The flyer comes over head and charges up its beam, leaving you just enough time to flee before the car is blasted. Fortunately for you the blast has opened up a small hole in the floor. Run across this and you fall in to safety. In the cave below, you see something on the ground glinting – a sure sign of something to collect. You walk to it and pull the joystick down to pick it up, then walk further into the cave. Hanging fronds block your path, so you pull the joystick down to crouch, then tap it to the right, carefully timing your hero's roll so he passes under the thrashing plants. You pass a shadowed crevice and into the next area where a panel in the wall appears to have an empty socket in the center. You walk to the panel and push the joystick up, causing the character to put the object he picked up previously in the slot. Back in the previous chamber, the striplights have powered up and illuminate the way into the crevice.
You push the joystick up to walk into the screen and enter another cave. Here a monster hangs from the ceiling, blocking your path. Those huge jaws look dangerous to pass, and sure enough beneath him is the rotting corpse of an unlucky traveller, the bones being picked clean by a group of cave bats. Edge carefully towards the corpse, and as you disturb it with your foot, the bats fly up... now maybe you can slip past while the monster is distracted by the bats?





▲ Top death scene from the Invictus lads.



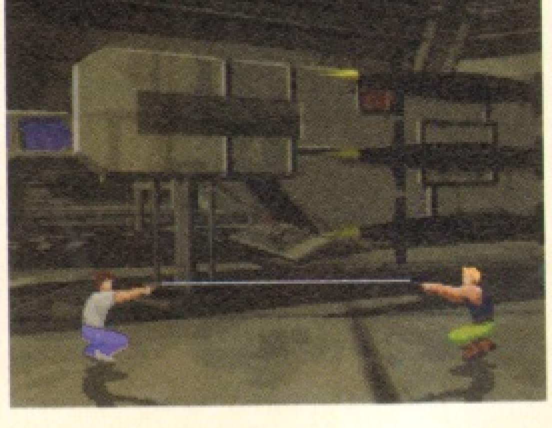
sion on this reviewer. Trying all the different ways of dying to see all those darkly humorous death scenes is almost a game of its own.

A menu screen allows you use a slightly faster frame rate if you have an accelerator, and allows you to load and save game positions at any time. The save game file contains a screen grab of the point at which you stopped, a nice touch that removes the old problem of remembering why on earth you called one save position Squid3 and the other GOB. There is support for joystick, keyboard and CD32 pad, and a screenmode selector to allow running the game on VGA only monitors.

Currently an AGA equipped Amiga is necessary, but Sadeness have told us they will provide a free upgrade patch for graphics card users in the near future, along with another patch which tweaks the character control method a little. Personally I liked the way the controls were configured, but apparently some of the feedback from the demo requested an alternative.

Technically OnEscapee impresses the way a good demo can, catching you by surprise with a little graphical trick or clever effect. In purely game terms, it is a little flawed. The control is not quite as responsive as it could be, and positioning can on one or two occaisions be pretty finicky. Once or twice I had to repeat my actions several times to get something done, but the only time this really stood out was when I rather embarassingly failed to dodge a falling pile of rubble about 20 times in a row because of something I hadn't twigged about the controls. Once you have learned the peculiarities of the control method, this will fade to a minor niggle – you will anticipate the slightly sluggish reactions to jump, for instance, and not end up at the bottom of a chasm so often.

I seem to remember Flashback suffered from this problem too. One saving grace is that the game can be saved at any time, and you can restart quickly right in the thick of where you last died, so you can have another whack at the problem straight away.



▶ Fine... but who shot who here? Just a little proof that it isn't all puzzles.

Worrying Anatomy

I have to say I am very pleased to see a game which plays so much to the Amigas strengths. Going for the 2D hand drawn look, Team Invictus have produced something that looks bloody good without having to worry about the horsepower of the CPU. If you find the game a little jerky, it is most likely because your CD-ROM drive is a little slow.

I have to confess that the artwork is imperfect, and more noticably so just because it is hand drawn. It is after all a lot easier to animate a render than it is to animate 2D artwork. The backdrops are all gorgeous, but some of the anatomy worries me. I am perhaps over sensitive to this having spent rather a lot of time learning to draw figures myself, but the character is not always correctly proportioned.

On the other hand the highly acclaimed rendered cut sequences in Tomb Raider display a shockingly poor grasp of kinetics and a very feeble grasp of human physiognomy – and I'm not just talking brasize.

If the raw draughtsmanship is merely very good, the audiovisual production overall is excellent. I know I've said this before, but I'll say it again, OnEscapee is a real experience. It isn't what we are used to, following a rather more sophisticated aesthetic than the average game, more Luc Besson than Lara Croft. I guess some people will be turned off by that, but personally I love it.

OnEscapee is a game you can load up and show to anyone used to Playstation, Nintendo or PC games without them wondering what you are on. Even if it is not their cup of tea, they are likely to be intrigued. OnEscapee is perhaps more suited to the epithet flawed masterpiece than instant classic, but those flaws aren't big. The game style is a bit behind the times, but a format well deserving of resurrection.

If you like action/adventure you are almost certainly going to find OnEscapee an excellent purchase; if like myself you thought that Another World and Foundation were superb then you've wasted far too much time reading this review and you should be on the phone ordering your copy right now. ■

Andrew Korn

One what?

Just to make it clear to all the confused people out there, the game is called OnEscapee, pronounced "one escapee". The alternative reading of "on escapee" is just gibberish, while overtones of "on escape" may well have been intended. Just think yourself lucky that the cheesy working title Dreams of the Future was dropped!

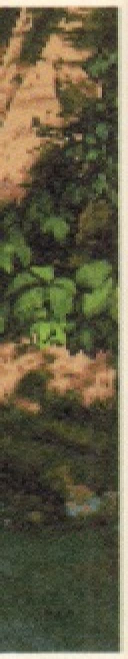
ONESCAPEE

Workbench version	N/A	Graphics	94
Number of disks	CD	Sound	92
RAM	4Mb	Lastability	90
Hard disk installable	A/A	Playability	88

OVERALL

Art or computer game? Who cares when it's this much fun!

92



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92%

Myst



What more can be said about the best-selling CD-ROM game of all time except that it's finally here?

I remember the excitement in the air when the hoax Myst demo was shown at the Montreal Amiga Convention in the summer of 1996 – on a PAWS portable Amiga, no less. The prevailing mood as we stood there and boggled was that it must be a hoax – but at the very least it was a proof of concept. An AGA Amiga could very well run the game that's kept millions glued to their monitors. Now, nearly a year and a half later, ClickBOOM's development team has made Amiga Myst a reality.

By now, after the months of buildup in this magazine as well as the years of coverage in the popular media, everybody has at least a vague idea of what Myst is all about. It's some sort of graphical adventure. The spartan documentation isn't much help either – it's safe to say that the box tells you more about the actual "purpose" of the game than the CD case booklet does.

Part of the purpose of Myst is that it's a game of exploration. It wouldn't be unfair to say it is about solving a mystery or two. That makes it unfair to both of us if I give you a complete plot summary, but it is worth knowing that the experience of Myst revolves around a man named Atrus and his rather unusual books.

"But it's just a slide show!"

If you REALLY insist on treating Myst as a slideshow, go ahead. Open up a graphics viewer and just go through all the pictures on the CD. There's no special encoding to stop you.

I guarantee it'll work. Then, when you've worked that out, double-click the Myst icon and play the game. I guarantee that it is a lot more fun that way.

Atrus is an avid scholar and scientist – a true renaissance man. It's often said of a good book that it makes you feel like you're in a different time and place – but Atrus' books really DO take you to a different time and place. That's how you wound up, disoriented and aimless on the seemingly deserted island of Myst. A catastrophe has befallen Atrus and most of his books – but some remain, waiting to be discovered by you, to transport you to other lands where you can piece together the information and evidence you need.

For you, the player, you have only the mouse at your disposal. Myst is completely driven by graphics – the ultimate GUI. Unlike other games which have attempted this (Sierra in particular), there's no complex inventory management to deal with. In general, objects you can pick up are for very specific, one-off uses – you don't need to wonder if you'll need that match you just picked up in two hours. Myst does revolve around puzzles, but they're typically not of the "Use object X on object Y" variety. Rather, you have to learn, read, record, and interpret what you see around you and can cull from Atrus' records, and then figure out how it might be relevant to a particular roadblock.

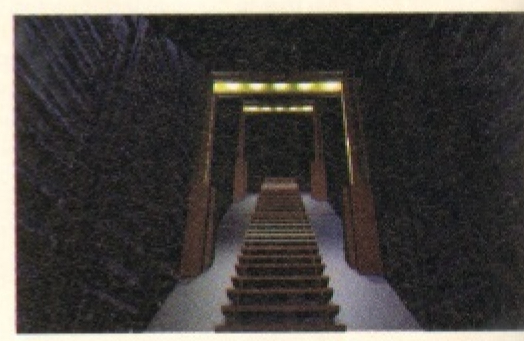
What's the fuss, then?

All of this might sound a bit pedestrian to you, or at the very least nothing that should have made millionaires out of its authors. And I'll warn you right now – for the first five minutes you play Myst, you may well come to that conclusion. Click forward, flip switch, click forward, ho hum. Particularly if you're in a rush, or haven't approached the game with an open mind, it's entirely likely that your first impression will be negative. Mine was, both when I first played the game on a PC a couple of years ago and when I got the ClickBOOM preview. But then I sat down, cleared my schedule, and gave Myst a real chance.

Then, I started to like it. It really started to suck me in – not quite so much with the graphics, although they are nice. It was the music and the sound effects that really did it. So often when a game author is trying to create an engrossing environment, they forget to stimulate as many of your senses as they can. Without tactile feedback and Smell-O-Vision, Myst does a very good job of bringing you into Atrus' world.

It was Atrus himself who put the finishing touches on my conversion. When you find his writings and records, you really get an insight into this man, and why you should feel compelled to do what's right in his name. (That, and there's not much of a game if you don't.) When I'd read his work and examined his drawings, and then tried paging through one of his obliterated books, I actually felt a certain pang of loss and disappointment when all I got were hopelessly destroyed pages. Myst has this funny way of making you care about what's going on.

Of course, the sound and music aren't going to be quite enough to keep you playing for hours and hours. That is where the much-lauded graphics come back into play. No, it's not like playing in a fully detailed 360 degree 3D world. You will find, as I did, that sometimes you feel you should be able to turn to face a certain way and simply can't. In congested areas (forests) this sometimes gets to be annoying and disorienting. But when you do get where you want to be – and even along the way, for that matter – you're treated to some very engrossing imagery. Again, you







can't expect every intermediate "going down the stairs" shot to be an absolute work of art, but there are many locations and rooms in Myst where you should allow yourself a chance to say "Wow. That is really nice," before you start clicking away like mad trying to find the right button to press.

The worlds of Myst you will visit have their own internal logic, as does the game. Discovering that logic is another part of the joy, along with being an appreciative spectator. The game really does make you think. On the other hand, the global proliferation of Myst means that if you DO get stuck, help is never very far away.

The Amiga implementation

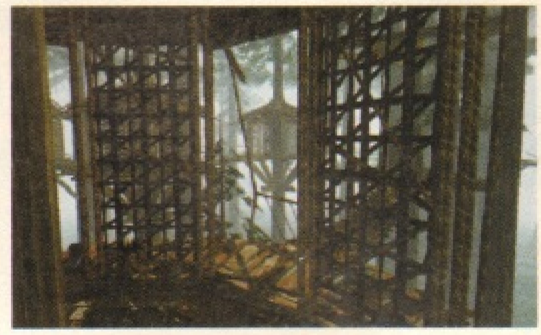
It was a hard and fast requirement of ClickBOOM's conversion contract that the game be virtually indistinguishable from the original, and to that end as much of the original's source material has been used. QuickTime, while perhaps not the optimal choice for Amigas all things considered, is used just as on the PC and Mac versions for the in-game animations. The graphics look the more or less the same – I was sent a PC version of Myst for comparison and can confirm that the Amiga version does indeed have nicer images in some scenes.

The only real difference is that to start the game, you have to make sure your audio and video are properly configured. ClickBOOM chose to use the AHI retargetable audio system for Myst – if you don't already have this installed, not to worry, Myst will handle the details for you. For video, you must first select a screenmode before entering the game. Myst will not automatically detect if this screen is large enough, however – experiment with the most attractive (Super72 or a Double-mode, for example) in high res laced/noflicker and reduce to regular NTSC or PAL if your machine is overly sluggish.

You have the option of installing various pieces of the Myst CD to your hard drive for optimal performance. In the most extreme cases, you can copy virtually nothing but the executable, or essentially the entire CD. I found that audio lost sync with animated video at times on a minimum-spec quad-speed CD – if this happens to you, experiment with installing more data and relying less on the CD.

CyberGraphX support was and is planned for Myst but in order to ensure Christmas delivery it was left off of the CD for final bug testing. A CyberGraphX executable was not available at the time of this review, but will be on ClickBOOM's website shortly.









◀ Myst looks great on an AGA Amiga, and even better if you've got a 24-bit CyberGraphX set-up.

◀ You've probably gathered by now that the game gets its name from the spooky haze that cloaks the island.

What does this mean?

The arrival of Myst on the Amiga, even when you ignore the time that's elapsed since the rest of the world got it, is certainly a major event. It's brought a legitimately enjoyable game to our favorite computer and pushed the envelope of system specs a little bit (can you imagine what would have happened just a scant three years ago if you insisted on 8 megs of RAM, AGA or better, and a CD-ROM drive? Madness in the streets!) And with ClickBOOM in serious talks with ID over making Quake their next project, are we seeing a return to mainstream legitimacy for the Amiga as a gaming platform?



▲ The gloomy atmosphere gets even darker as you gradually uncover the secrets of the game.

The jury is still out on this one, but from my discussions with Alexander Petrovic, Producer of the Amiga port of Myst, it seems clear that we should consider Myst an exception, not a rule. Extraordinary circumstances (the sufficiently eye-catching fake demo) piqued the interest of a developer (Cyan) and an Amiga publisher (PXL) sufficiently that a deal could be worked out. Similarly extraordinary circumstances played a role in the current Quake discussions – the proliferation of technically illegal implementations of Quake on the Amiga due to ID's source code being leaked once again got a lot of attention.

As much as we may like to think so, porting a game from the PC or Mac to the Amiga requires more than sending a case of beer and a stack of source code to a hobbyist Amiga programmer in Sweden. Any project of Amiga Myst's magnitude requires, among other things, extremely strict quality control for an original developer such as Cyan to give it the go-ahead.

So, despite the best intentions of PXL and other aggressive Amiga publishers, it seems that while some doors have been re-opened, there is not bound to be a full fledged re-invasion by those publishers and developers who have dropped Amiga support over the past few years. What's still the most important fact is that Myst is now here. It is what it has been built up in our minds to be – a ground-breaking game. And it's ours now, too. ■

Jason Compton

SHADOW OF THE THIRD MOON

■ Workbench version........3.0	Graphics 97%
■ Number of disks.....CD RAM	Sound..................... 94%
■ 8MB HD Installable.......Yes	Lastability................ 92%
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OVERALL

A superb game which looks great too.

92%

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3.5" Floppy Disks

Final Odyssey

■ Price: £29.99 ■ Publisher: Vulcan Software © 01705 670269

After a short stack of mediocre floppy releases and the announcement of a formidable stack of new games, Vulcan's shipping department went rather quiet... until now.

▶ The amount of detail in Final Odyssey is impressive, proving that the ancient art of 2D spite design is far from dead.

The company restructured a bit and tapped Weird Science to handle their distribution and some advertising, freeing them up to have more time to pursue and prod their programmers to finish games.

Some of the promised titles were dropped, some more added, and now Vulcan seems to be on a roll again. Vulcan Software's Australian brain drain continues. Following the recent Uropa2 from Austex Software, they've turned their sights again to the southern hemisphere and picked up Ozlander Peter Spinaze's Final Odyssey, the next entry in Vulcan's CD game series.





Come sail away

In Final Odyssey, you take on the role of Theseus. For years, your people have had to send young girls to their doom at the hands of the evil Minotaur in order to placate him. But after a time, you get fed up with the senseless waste of so many virgins, and set out not to placate, but to pummel the Minotaur.

To do that, you'll need to make your way through his insidious Labyrinth. You start armed only with a reliable but unimpressive crossbow, and must collect more weaponry, avoid traps, solve puzzles, collect money, and rescue the aforementioned maidens. At the end lies the Minotaur.

Final Odyssey could be considered "Alien Breed Goes To Valhalla," although the action is more reminiscent of the former, right down to the baddies that jump out of the floor at you. The action is a little less non-stop than a top-down Breed game – it's actually possible to get a breather.



After all, the Minotaur is on the defensive, he's perfectly willing to let you wear yourself out scrambling around shooting at goblins and pulling switches. On the other hand, there's a very Breed-inspired "Defuse the bombs before time expires or lose a life" subgame to contend with.

As you travel along, you'll also encounter scrolls left behind by those who have tried and failed to end the Minotaur's reign of terror. They usually give you clues to puzzles, although some are warnings or other bits of detail.

Vulcan's trademark has always been in digitized speech, and with their dedication to CD-ROM you can expect as much of it as possible. Surprisingly, most of the speech is confined to the online manual, which shows up on the screen and is dictated to you in a rather pleasant female voice.

Unfortunately, it's actually a bit distracting and only slowed me down in trying to read through the relevant instructions, but if you want to close your eyes and let the dreamy voice tell you all about the game, you're welcome to. I was surprised that the ingame text (such as from the reading of scrolls) was not also spoken to me.



Battling it out

Final Odyssey plays in a top-down 3D view, with brightly colorful graphics which have been given a great deal of detail. As Theseus, you have to get in, arm yourself well enough to take on the Minotaur, and eventually find him, somewhere on Level 5.

In addition to the monsters that get in your way, there are a limited number of creatures you can pleasantly interact with, asking for information and getting assistance along the way. You'll want to check out the manual before playing to get the definition of the icons used in the questioning process, as

"Question 1" and "Question 2" are hardly illuminating.

I was pleasantly surprised to see that Final Odyssey doesn't get easily caught in a lot of "sameness." Maze-based games can often get simply boring when you stop caring about what's behind another bland corner. The main corridors are not randomized, although there are subgames which are different every time you encounter them.

So you can plan out how to disarm the right traps in the right order and get the same results every time you play, but there's really no such thing as a good strategy for the subgames, which involve destroying the guards in a hedge maze and disarming the time bombs they drop before the time expires.

Despite its origins in mythology, Final Odyssey pulls a lot of inspiration from magic, present technology, and even some future technology. There are hologram walls, teleporters, boulders that turn into bad guys, and a hero's arsenal including a chain gun and bombs. Rather than seeming simply like an uninspired author reaching for lots of clichés, it all comes together nicely in this game.

The attention to detail is fairly impressive. Crossbow bolts stick in walls and stay stuck for quite some time (rather than simply disappearing when they scroll offscreen), the monsters look eerie in a campy sort of way as they ooze towards you, and brightly coloured rotating turrets shoot fireballs at you with deadly accuracy.

Giving your all

Final Odyssey asks rather little of your Amiga short of a double-speed CD-ROM drive. 2 megs of RAM (any sort) are required, 1 meg chip minimum. ECS and the 68000 are supported, which means even a limping A500 can handle the game. No installation to HD is required, although you'll want to save your games there. The game has a healthy allotment of 10 save slots.

This is good, because the real challenge in Final Odyssey is not so much the puzzles, or ammunition management (although you should treat bombs like gold), or in finding the right soul to help you out, but just in living long enough to get to the end. There are so many little traps in Final Odyssey – an arrow here, a floor spike there – that your health and eventually your extra lives get whittled away before you know it.

The maps in Final Odyssey can get expansive at times, but there's little reason to keep a pencil and paper nearby – usually you are rewarded for your explorations fairly quickly and don't need to do an inordinate amount of backtracking. Transitions between maze screens (they scroll up to a certain point, but you enter different regions from time to time) are nice and snappy, but other changes (like altering the maze due to flipping a switch, or the nuking of the hedge maze if you fail to stop the bombs) suffer from the "extremely long fade" illness I've seen in other games, like the AGA conversion of Civilization. It really breaks up the rhythm of the game.





▲ Despite the old fashioned top-down approach, the graphics still stand out as neat and stylish, instantly elevating the game above the likes of the Valhalla series.

Breaking conventions

I've played a lot of games, and it's nice to see that every now and then an author will make a break with common gaming notions. In Final Odyssey, as you collect food to boost your health, you can actually go above the top level of strength and start working on another "life" worth of health.

I wish more game designers would consider this – it's hardly less realistic to think that you could start building another "life" than it is to have multiple lives in the first place, which Theseus certainly does.

Spinaze broke another rule, but one I'll have to condemn rather than compliment him for. The monsters chase you, typically with some less than stellar AI – but that's not my problem. My problem is that they chase you at exactly the same speed that you move. It's not such a bad thing if some of your enemies are your equal, but from the days of Pac Man on, it's been a well established fact that speed differentials make for more tension.

As it stands, Theseus can flee most trouble – the monsters can't gain on him, and they have to stop to fire a weapon, so unless you get outmanoeuvred, the monsters are less of a threat than they should be. (For the record, Pac Man was slower on straightaways but faster on corners) I was disappointed when I realized what was going on.

Final Odyssey is a healthy amount of fun to play. It's visually stimulating, with adequate sound effects and enough incremental rewards as you progress through the labyrinth to keep you hunting for more. It's a little disappointing that there isn't a greater variety of monsters to fight or that the CD-ROM wasn't used to greater advantage, but in all, especially considering my lack of appreciation for paper-and-pencil mazes, I had a great time. There's enough arcade action to go around without becoming a straight shootemup, but it's by no means "cerebral."

Peter Spinaze was a one-man band as far as the creation of the game is concerned, and as far as I'm concerned he did an overall excellent job as designer, programmer, artist, and effects man. Where these one-man teams always seem to have trouble is their 3D work, and in this case if just a few shots had been cut out of the 3D intro movie, it would have put a much better face on the game as a whole.

From a general programming standpoint, the game has an annoying habit of slowing down when too many monsters get onscreen at once, regardless of the speed of your machine – a different timing mechanism would have been appreciated. Aside from that, I yield to the colossal effort completing a game entirely by hand entails.

Bottom line, I'm impressed by this release. It's done a good job of balancing game quality and machine requirements – I am one of the most stalwart advocates of high-end Amigas you'll find, but on the other hand I can appreciate a well-done, low-resource job when I see one. After an uninspiring launch to the series (Strangers), Vulcan's line of CD releases have indicated some very good things for the future, and I hope to see Peter Spinaze share another view of another world sometime soon. ■

Jason Compton

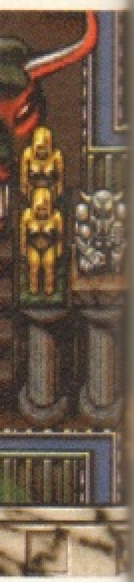
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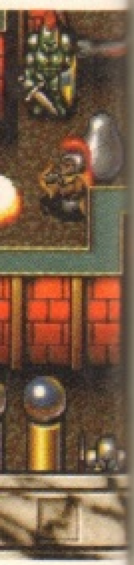
■ Workbench version ......2+	Graphics 90%
■ Number of disks ...CD-ROM	Sound 85%
■ RAM 2Mb	Lastability 80%
■ Hard disk installable ....N/A	Playability 92%

OVERALL

Impressive stuff, reminiscent of old Bitmap Brothers fare.

87%





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Sword

■ Price: £14.99 ■ Developers: Serio-Comic ■ Published: Titan ■ Distributed: Epic © 0179 3490988

What do you get if you cross Bub and Bob from Rainbow Islands with George Formby? The main character from Sword...

When I heard the title of this game, it conjured up many images in my mind. Would it be an intricate role-playing fantasy adventure, or a mad hack and slay bloodbath? No, Sword is in fact a platform game. Swords barely get a look in.

Two-dimensional platform games have been somewhat out of fashion over the last few years. After all, why have Manic Miner when you can have Tomb Raider II? However, if in these retro times where flares are back in fashion (for the tenth time in as many years) you still crave for the old days, then read on.

The story goes that you, our hero, have been sent on a quest by the King. Your goal is to find some mythical sword, hence the title. Armed only with your wits, and what can best be described as a machine gun, you must battle your way through various levels of fiendish traps and vicious monsters to achieve your goal.

Quite why the sword is so important to the King when he's got a machine gun in his arsenal I can't say. But the result is that you can dispense death in rapid bursts, so who am I to argue?

Bouncing around smoothly

The first thing to say about this game is that it looks nice. The graphics are neat and the baddies are varied and amusing. The backgrounds are well drawn and different on each level. The end of level baddies also look impressive. In fact it's hard to think of any game of its ilk which is better presented.

Your character bounces around smoothly, and the collision detection is good, so you rarely find yourself arguing with your monitor about the validity of your character's death.



▲ Sword pits you against an almost unlimited supply of vaguely insectivoroid foe.

As you progress, the levels offer some different challenges, as well as the usual array of dangerous leaps and troublesome nasties. I particularly like the underground levels, in which your path is lit by a little glowing sphere which rotates around our hero, illuminating only a small section of the screen – a nice touch.

On several levels you are challenged to stay ahead of the edge of the screen, which chases you relentlessly causing death on contact. In a similar vein you may also find yourself fighting your way out of a rapidly flooding cave system.

What about the gameplay?

Sadly, good presentation is not enough to make a good game. There are other features like playability to be considered. One of the hardest things to get right on any game is the difficulty level – too easy or too hard and you can quickly lose interest.

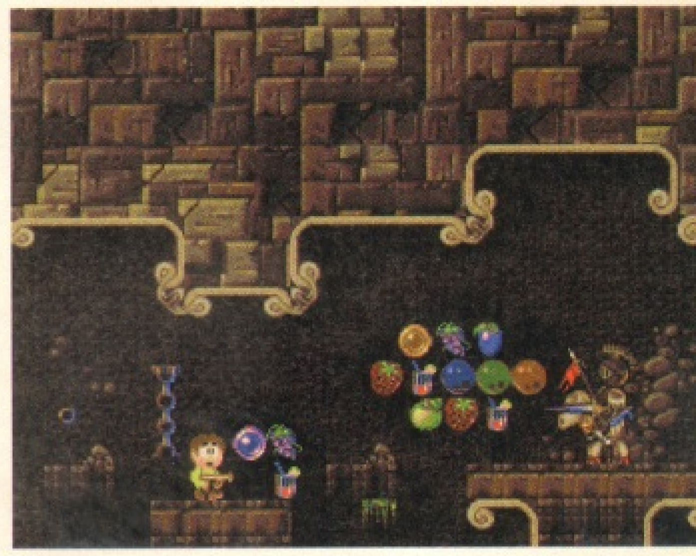
There is no question that some may find Sword just too difficult to bother with. It requires a lot of patience to get any distance with this game. Lives and indeed whole games can disappear rapidly. Learning from your mistakes is often the only way to get past certain hazards.

The patience needed to get you to the end of level baddies is nothing compared to the amount required to beat them. It is here that the game gets it all wrong. Apart from the baddies themselves, which suddenly make your character look very small and his gun seem very lame, the end of level screens are pretty dull. With so many hits being required to kill the damn beasts, and so few options as to how to go about it, you may find it difficult to maintain both your concentration and your interest.

No sneaky bits?

Another fundamental problem with this game is that it's just too linear. There is only one route through each level, and there are no short cuts or other sneaky extra bits to keep you searching. If you reach a part which you can't negotiate, you may find that giving up is a more tempting option than wasting your life away getting it right.

Fortunately you have plenty of lives, and any baddies you managed to kill with your previous life do not return to haunt you.



▲ Make no mistake, that's a machine gun not a banjo. And you are going to need it if you want to get past that toy knight! Ahh, the heady surrealism of it all.

After you lose your final life, you can continue your game from the start of that level, and there are level codes to prevent you from having to fight your way through the early levels every time you load the game. Having rooms or locations which can be visited in the order you chose, as in Super Mario World, would allow you to continue playing the game despite being stuck at a particular point. As for the music, an option to turn it off would be a bonus.

Overall, this is a well designed, challenging game. The animation is smooth, and there is enough variation between the levels to keep you wondering what the next one will be like, provided that you can be bothered to keep going.

Despite its many good features, Sword really doesn't have anything new to add to the platform game genre. However, if you have plenty of time on your hands and are craving a fix of platform action, this should have enough to keep you entertained. ■

Jonathan Brooker

SWORD

■ Workbench version......3+	Graphics........86%
■ Number of disks..........1	Sound........60%
■ RAM..........2Mb	Lastability........70%
■ Hard disk installable ...Yes	Playability........80%

OVERALL

Nice try, but in the end Sword just doesn't quite cut it.

78%

Tips Central

Tips time again! This month we got some free labour from Dave Stroud who foolishly volunteered to type in this little lot, just for the honour of making Andrew Korn a cup of tea. Opposite it's Adventure Guru Sjur Matheson.

James Pond 2 – Robocod

Those colour-blind fish-loving platform-obsessed souls out there who still play James Pond 2 – Robocod may be interested to know the locations of some secret rooms.

Play the bath level, and immediately afterwards, drop to the bottom of the castle and walk left to the statues of the snowmen. These will turn into a moving platform when you jump on them, and you will be transported to the top of the screen. Now walk left into thin air, and jump.

You should be standing next to some doors now, behind which are plenty of bonuses. If you go back to the snowmen after completing the circus level, and jump on the snowmen again, a platform will float upwards and take you to a tunnel, where even more bonuses can be picked up.

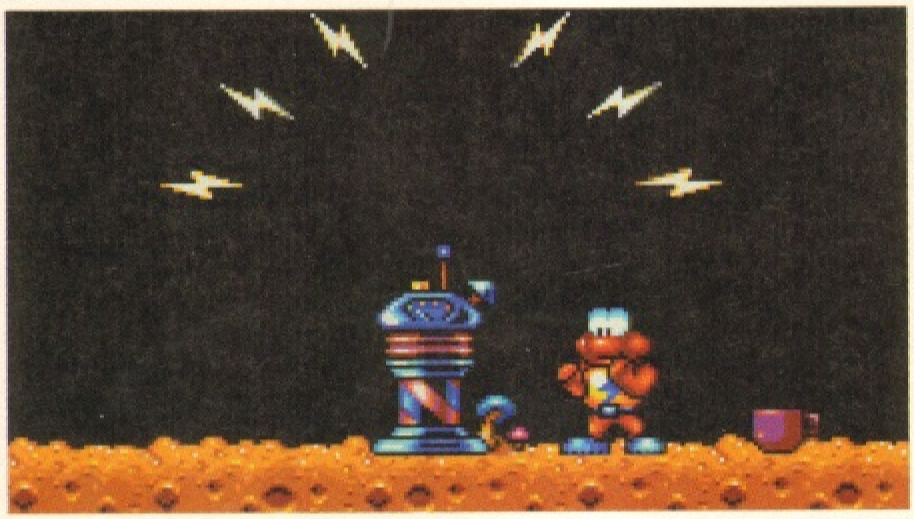
Championship Manager '93-'94

Following on from last month, here's another tip for Championship Manager '93-'94:

Select "New Game", "Tranmere" and "Arrogant" before calling yourself "Mr. Bulgaria" and then you will find yourself rolling around in lots of money. 30 million quid to be precise.



James Pond 3 - Operation Starfish



And for those James Pond fanatics who just couldn't get enough of the day-glo orange piscine secret agent and were suckered into also buying James Pond 3 - Operation Starfish, here are some cheats that should make your sub-aqua over-hyphenated life a hell of a lot easier:

On the map screen, type any of the following: "EVAS" to save your game at any time and "UNCLE ROGER" to get a message from the programmer. Alternatively, don't.

Super Stardust

Type in your password as any of the following so you can get some help:

HAPPYARCADE
Start with 7 lives.
YOUARESOSAD
Start on level 13.
MAKEMEHAPPY
Unlimited lives.
BZZZZZZZZZB
Warp 1, 25 lives + full powerups.
ENZZZTZALPO
Warp 4, special mission, 10 lives.
ZZZZZZZZZZZ
35 lives and full weapons.

Zool 2

If you're fed up of starting on level one all the time (and let's face it, who wants to do that all the time?), try typing these codes in on the title screen to be immediately transported to more exotic locations:

Level 2: SESAME
Level 3: RONSON
Level 4: FUNKYTUT
Level 5: HISSTERIA
Level 6: 7SLURP
Level,7: PLUNGER

Wendetta 2175

You say tomayto, I say tomarto, you say Wendetta, I say Vendetta. Wendetta, Vendetta, Wendetta, Vendetta, And now f'some level codes:

Level 1: CAQCTZP
Level 2: UADCVXW
Level 3: FAFWTJR
Level 4: YABTCJP
Level 5: KAJBFYU
Level 6: LALGVZS



You need help

If you would like some help on any game – or you have some tips that you'd like to share with your fellow readers – then please write to us at Tips Central at the following address, remembering to mark your envelope Adventure or Arcade accordingly:

Tips Central,
CU Amiga Magazine,
37-39 Millharbour, Isle of Dogs.
London E14 9TZ.

Adventure helpline



Monkey Island 2

Monkey Island 1.

I'm stuck on the ghost ship, as I don't know how to get the anti-root. Also how do I go through the squeaky door?

I've read a tip from CU Amiga adventure helpline, and it said you should use the grog on the rats to make some sort of grease for the door. But, if there are rats I can't find them. Please, help me?

Chris Watkins, S. Yorkshire

Dear Stuck, The first thing you have to get, is the key hanging on the wall in the captain's room. Try using something magnetic. Then you head for the room with the chickens, and open the hatch using the very key you just stole. Climb down and you're in for a creepy surprise.

Try serving them a drink. The rest is easy, so I guess I can gratulate you on completing The Secret of Monkey Island.

Simon the Sorcerer.

Please could you tell me how do I get in past the door outside of the Tower of Doom in Simon the Sorcerer 1?

Louis Shanahan, Ireland

Well Shanahanahan, I see the tip from the December-issue helped. Well... enough chit-chat. To enter the Tower of Doom, simply drink the potion you should have in your inventory. If you don't have it you need to visit the swamplings house, and go down the trapdoor.

Fix the loose plank with the nail, and you can reach the scull. On top of it there's a plant called Frogsbane. Collect some of it and give it to the druid in the city, in exchange for the potion.

Monkey Island 2.

Could you please give me some assistance with MI2. I'm stuck in the room with the lights out and cannot find the light switch.

If you can help me with this I'd be very grateful. Also I've noticed there's a MI3 out on some formats. Do you happen to know if there is an Amiga version planned?

Nicola Borrill, Rotherham

The assistant answers... The switch is there! You should be able to find it by moving your pointer around.

To narrow things down a bit, you should concentrate on the right side of the screen, and about half way up... or down. If we'll ever see Monkey Island 3 on our dear Amiga I don't know. There was a small rumour some months ago, saying a PPC version was under development, but I doubt it. We can still hope though, 'cause MI3 ended on top of the ClickBoom survey, asking what games people would like to see for their Amiga. Another solution would be to use shapeshifter and the Mac-version of the game, but you'd need a pretty fast amiga to do this.

Willy Beamish

Dear Helpline, Please help me, I'm desperate! I've been playing Willy Beamish for some time now, but I can't figure out how to get rid of the babysitter-bat on day 2.

Bart Simpson

Hello desperate. Head for the bathroom and pick up the hairspray. This can be used to slow the bat down. Next stop is Briannas room. The cat should be playing with a mouse. Take the mouse, and don't care about spoiling the evening for the cat. It can catch another one. Run down to the living room and spray the bat, before clicking on the vacuum cleaner.

You'll find yourself hiding behind the sofa. Place the mouse on the table, and you have bait. Use the target mark on the bat when it starts attacking the mouse, and you'll at least live to see day 3.

Operation Stealth.

Can anyone help me? I can't find anything to do in the office of the palace. Please help me!

Fred Flintstone

It's been quite a few years since I played this game. I didn't remember what to do myself, so I made a phone call to the owner of the palace and asked him.

He told me you could try operating the arm of the statue in the lower right corner of the room. A safe is then supposed to appear, but he wouldn't give me the code. He only said you'd need some kind of box, and mentioned he had lost one in the bank some time ago. If you had such a box, you'd have to operate the on/off button to the first switch on it.

Then you'd have to press the up/down arrows until the first light on the box lights up. Next step would have been to operate the validation button on the safe, then repeat the complete operation for the next tree lights, turn off and take the box, and then press the validation button again to open it. But that was only if you had such a box, he said laughing, before he hung up.

Lure of the Temptress

I've broken into Taidg's place and lit the apparatus, but I don't know how to make the potion or where to find the ingredients. Need your help badly.

Earthworm Jim

Help is near. All the answers are right in front of you. Read the diary and then examine the apparatus carefully. You'll find an oil burner, a flask, and a tap.

Use the tinderbox on the oil burner, and then the flask on the tap. Your problem should be solved, and you can start the quest for new ones.



Simon the Sorcerer

Tech Scene

Plenty to be getting on with in this month's Tech Scene, including the fascinating Distant Suns and a remarkably neat and ingenious A1200 tower solution, not to mention a round-up of mice and a couple of new Atari and Apple emulators.

Distant Suns 5.01 CD

■ **Price: £29.99** ■ **Supplier: Wierd Science** ✆ **0116 2463800**

Space... the final frontier. CU boldly goes where no Amiga CD-ROM has gone before.

Distant Suns is not a new program, but it is a great program. In fact, it's one of my favourite Amiga programs ever, and one which I've been using for years. It's for anyone who has ever looked up at the night sky and wondered, or in fact anyone with even a casual interest in astronomy and space sciences.

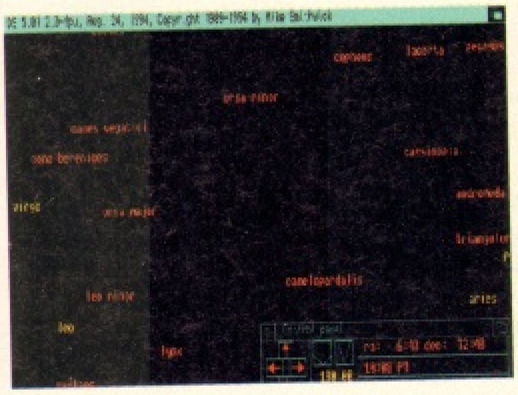
In a nutshell, Distant Suns is your own personal planetarium, but without the Laser Rock Shows at the weekends. For any given date, time and location it will display a picture of the sky, scattering the stars, planets and galaxies as you would see them on a clear night. With your room lights turned down, and monitor adjusted, the effect is beautiful.

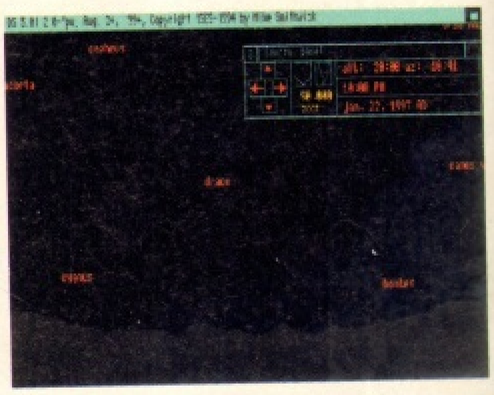
It's still very easy to use, and the manual does an excellent job of getting you over the potentially confusing hurdle of co-ordinate systems. Once you start it, it looks at your clock and calculates the position of all the objects you could potentially see. You'll need to tell if where you live (as your location on earth obviously makes a difference) but that's the hard part over. Distant Suns may lack the encyclopedia of background information which accompanied the similar Amiga package "The Digital Universe", but it makes up for it by being friendlier and less intimidating.

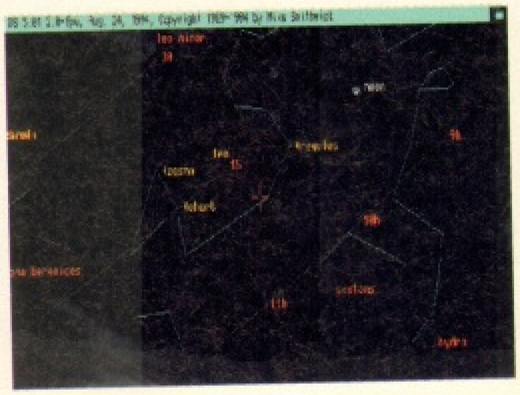
Since I last installed Distant Suns, I glad to report that it has sprouted an ARexx port. This is perfect for advanced users, because now your own programs and scripts can have access to the complicated mathematics involved in calculating the position of the sun, moon, stars and planets. With a little ingenuity, the ARexx port could be used in an Amiga based system capable of guiding a telescope for example. Some ARexx scripts are provided to get you started, and these include a function to return the position of the moon and a function which creates an animation of comet Halley's fly-past.

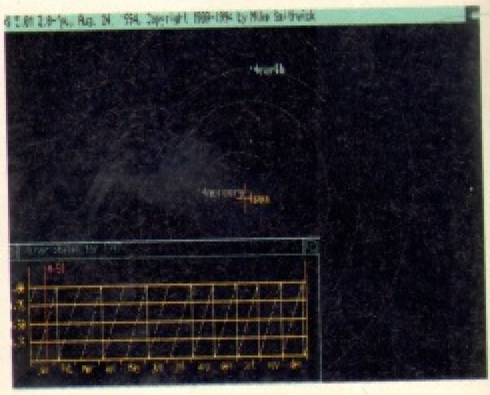
As it is now also distributed on CD-ROM, this means that the huge Hubble Guide Star Catalog and "Stars on Demand" files can be included: on their own these files would have consumed over four hundred floppy disks. These add-in files increase the number of stars which the program can display to the extent that most amateurs, even the keen ones with large telescopes, won't see the faintest. And that's a lot of stars - over sixteen million in fact.

Also on the CD-ROM are over 1500









Heavenly Bodies

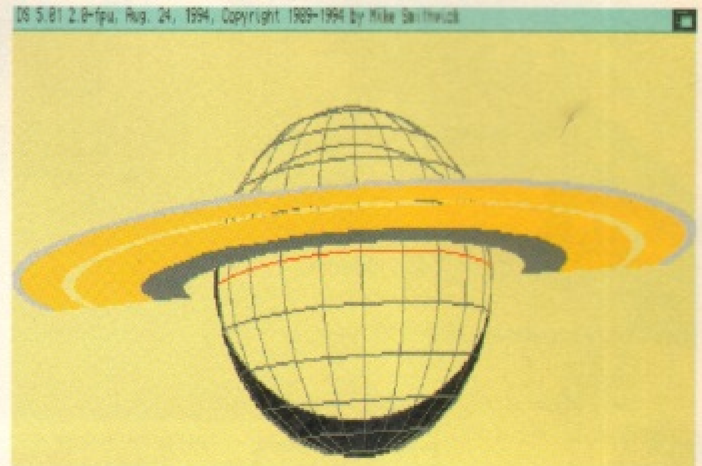
Distant Suns includes details on many more objects than the stars.

1. Planetary Data Now only can you find the position of the planets, but also view their phase - useful when planning telescope observations.

2. Lunar observation The moon is rendered with wonderful detail, including the correct shading. The stars around it are part of the Hubble Guide Star Catalog, which includes over 16 million stars.

3. Planetary images Click on a planet, and up pops a screen containing this kind of highly detailed image from the NASA archives. Award yourself 5 points if you recognised one of Mars' moons.

4. Deep sky objects Here we've selected one of the so-called Messier objects. Not only do we get detailed notes, but a little picture.



▲ Zoom in on planets, and check their phase.

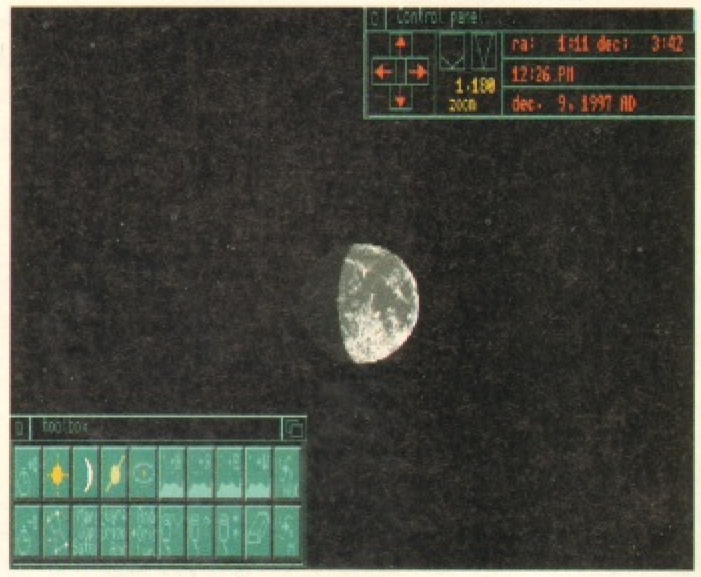
images of the planets and deep sky objects. These are linked into the program so that clicking on the little red dot that is Mars will bring up pictures of the surface, moons and so on. Some animations are also included to fill up the disk, and the result is an excellent package. It's better than a glossy book because it's interactive: you can see what the stars would look like on the day you were born, and you can create a map to take outside and use to guide yourself around the sky.

There's so much to Distant Suns that it's hard to do it justice in this relatively small review. You can print out your own star maps and ephemeris (a list of astronomical positions with setting and rising times), add your own objects such as comets, view the solar system from millions of miles away, watch solar and lunar eclipses, teach yourself the constellation names... it's a big, big program.

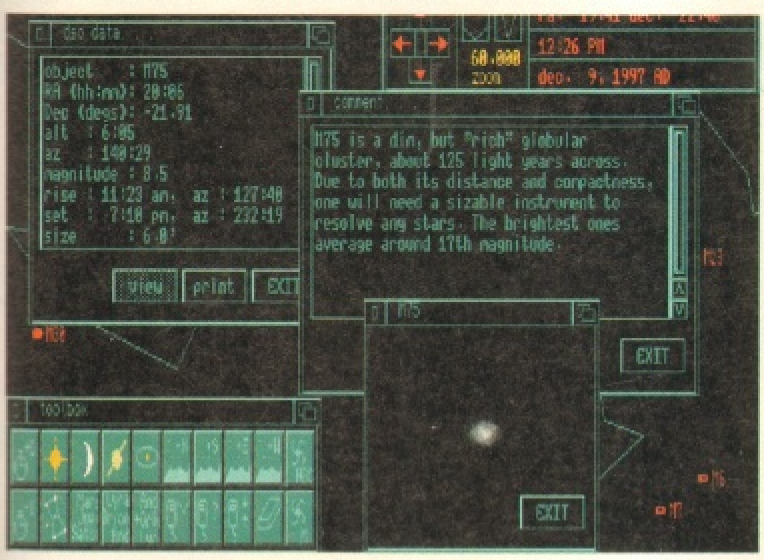
Not that big though: it was written back in a time when memory wasn't cheap, and so it will work on almost any system. Obviously an accelerator card will make a difference to speed (an FPU version is included), as there are a lot of sums involved, but even on an A1200 it's fast enough to be useful.

Perhaps the only problem is the lack of support for graphics cards. Although the Distant Suns screen mode can be promoted using utilities such as NewMode, a built-in mode requester would be better than the limited tooltype support. There are rumours of this appearing in an update, so pester the publishers and let them know. ■

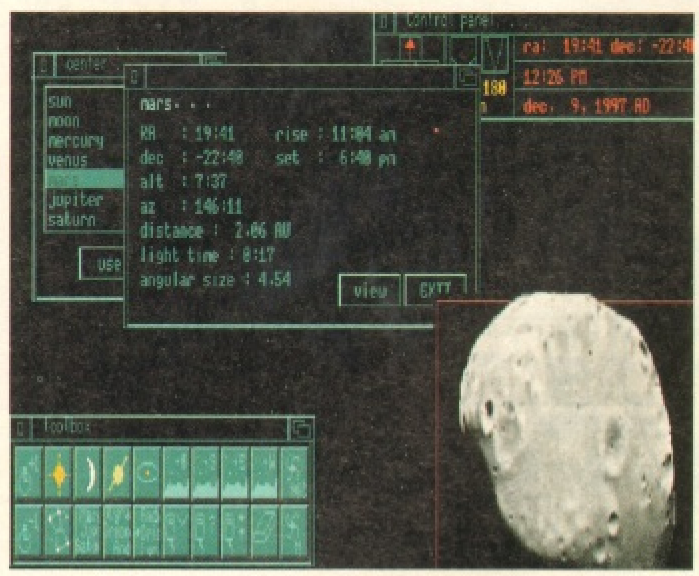
John Kennedy



◀ The moon graphic is so good it looks like a photograph!



◀ Click on the galaxy and up pops a tiny photograph so you know what it looks like.



◀ Speaking of photographs, the CD-ROM is packed with NASA images.

Different views

There are many different ways to look at the sky with Distant Suns, depending on what you hope to see.

You can configure it to show you what you would see if you went outside (complete with twinkle effects) , or you can view the entire solar system from an imaginary spacecraft.

1. **Planetarium view** This view displays a huge 180 degree view. It's useful for quickly finding a particular object.
2. **Local view** Switch to local view to create the picture you would see on a perfect night. You can even change the landscape to match your surroundings.
3. **Local with extra data** Extra information such as star names and grids to help you find your way about can be toggled on and off.
4. **View from space** Here's the inner solar system planets as seen from four times the distance of the sun. You can watch as the planets rotate, and even create an animation of it for later.

DISTANT SUNS 5.01 CD-ROM

System Requirements:

2Mb RAM, 4Mb hard drive space, Workbench 2.04

Ease of use 88%
Some knowledge of astronomy would be useful, but is in no way essential.

Performance 90%
Surprisingly quick when you realise the mathematics involved.

Value for money 95%
A bargain for such a professional, useful and educational program.

OVERALL
Great to see this wonderful program on release again.
92%

Apple II Emulator

Freeware. Distributor: Microcode Solutions

http://www.ctaz.com/~msdei

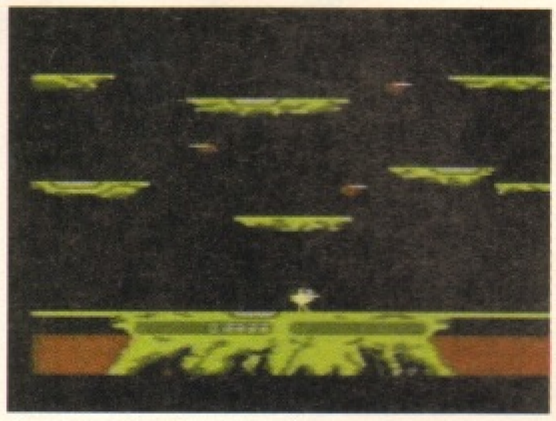
The Apple II, for better or for worse, was the garage-designed computer that Steve Jobs convinced millions of people and countless institutions to buy. It was a bit of a paradox by 1982, it was offering less in features for more money than other computers, but had such name recognition and software support it kept plugging along. And with A-II, you can keep a 48K Apple II+ plugging along on your Amiga.

At first, I was skeptical of A-II. After all, we already had a very capable, if not perfect Apple II emulator in Apple2000. While it hasn't been updated for three years, it does a pretty good job. Add on top of that the fact that A-II comes from Microcode Solutions, the principles of which had once solicited Apple2000's author to buy the program, and even showed it at a convention, and you worry a little more.

To clear that up first, A-II is not Apple2000. Its operation does share some common features, such as variable speed and multiple input selection on the fly, but as far as I can tell this is not a simple rehash of someone else's work.

The emulation takes place on a custom screen (AGA not required). You will need to obtain the original ROM images for the emulation to work properly. Other than that, even a standard A1200 can run the emulator, although with an 030, you will be able to get the full experience, more or less, of using a real Apple II+, right down to the limited but garish palette and the sound that makes PC speakers sound symphonic. A-II allows the reading of disk images and memory snapshots, and there are certainly a lot of them out there.

I did have a difficult time spotting the differences between A-II and the incumbent Apple2000, and at first all of the points went to Apple2000's column. A-II has the annoying habit of opening its file requesters on the Workbench instead of on the same screen as the emulation. Rather than holding the disk image in memory and only saving changes when told to, A-II allows the emulation to write to your disk images at will. And I prefer Apple2000's "status bar" to the teeny on-screen icons A-II uses for user information. But then the compatibility tests started.



▲ Unless my eyes deceive me, here's that old fave Joust doing the emulator thang.

I dug out programs that had given me trouble on Apple2000, usually with crashes due to an unknown instruction, and A-II capably handled some of them. It also has a write-protect option for disk images which some games require. It also renders the Apple's graphics slightly diferently, avoiding some of the historically accurate but annoying Apple II+ color bleeds and splotches.

Had A-II implemented a 128K Apple, it would have been wonderful, but as it stands A-II will have to be a complement to, rather than a replacement of, Apple2000. ■

Jason Compton

APPLE II EMULATOR
Developer: Microcode Solutions

System Requirements: OS 2.04, 68020, 1 Megabyte memory. 2 Megs memory and hard drive recommended.

OVERALL

It should have pushed the envelope a bit more.

80%

Atari 800 Emulator

Freeware. Distributor: Microcode Solutions (www.ctaz.com/~msdei)

While it's generally accepted that the Apple II started the home computer revolution, it was the Atari 800 that was the first home computer that had the sort of qualities we came to expect: good graphics/sound and at least a semblance of user-friendliness.

The Atari 400 and 800 predated Sinclair and Commodore's forays into home computing by a couple of years and their popularity peaked earlier, and with less overall success. By 1985 it was clear to most software developers that their fortunes lay elsewhere. But the Atari 8-bit computers share a special common thread with Amigas – they were largely designed by custom chipset wizard Jay Miner.

Finally, Microcode Solutions has provided an easy-to-use program to emulate these old workhorses. ACE has been released as freeware in an as-is state. That means emulation isn't perfect, some features are unimplemented, and isn't likely to get any better.

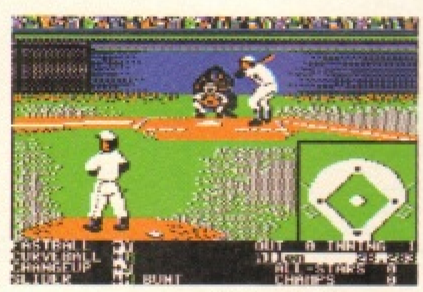
But there aren't many alternatives, and ACE is the only one that will run well on an 030 Amiga.

ACE emulates the original 48k Atari 800, meaning most but not all of the software you can find for the Atari may work. (Later models boasted up to 256k of memory, but those were in the dwindling years of its life.) ACE even boasts an Amiga-to-Atari networking system you are invited to build at your own risk, which will allow you to access real Atari hardware.

As it stands, ACE will run cartridge images, disk images, and "snapshot" files. The XFD disk format is supported over the more popular ATR, but stripping the top 16 bytes from an ATR file turns it into an XFD. AGA is recommended for full color and sprite effects (the Atari had some very splashy "colorbar" effects thanks to its Jay Miner chips, and pioneered the hardware sprite). Graphics cards are not supported by the emulation.

As with any emulator, compatibility problems arise. ACE has trouble with a few Atari graphics modes leading to very corrupted graphics. It sometimes "loses" sprites or doubles their dimensions when inappropriate. And then there are programs which will simply fail. For the industrious hacker, ACE has an exceptionally elaborate debugger built in, so you can pick apart problems or learn more about the Atari's inner workings.

ACE is blemished, but I am grateful for the release of a straightforward emulator for the Amiga, and can only hope it will inspire others to build on the work and come up with a more rock-solid way to experience the very unique and underappreciated world of Atari 8-bit computing. And if you're interested in buying the technology outright, I hear JTS Corp, which recently bought out Atari, isn't doing much with it these days. ■



▲ Atari Baseball. Americans play this game, apparently.

Jason Compton

ATARI 800 EMULATOR
Developer: Microcode Solutions

System Requirements: OS 2.04, 68020, 1 Megabyte memory. 2 Megs memory and hard drive recommended.

OVERALL

Certainly better than we've had to date.

80%

NEW...

POWER UP

AMIGA™ GOES POWERPC™

POWER UP YOUR AMIGA...

*A further dimension is being added to Amigas with our new PowerPC based **BLIZZARD POWER BOARDS** for A1200, A1200 based Tower Systems and A1500/2000 systems along with the new **CYBERSTORM PPC** for A3000/4000 systems. You'll now be able to benefit from performance many times beyond the speed of the fastest 680x0 based boards.*

Designed as upgrades for existing systems, **Power Boards** incorporate innovative dual processor technology where a fast PowerPC RISC processor is combined with a 68k CPU, dynamically sharing memory and system busses.

While the original AmigaOS 3.x continues to run on the 68K CPU, supporting existing applications to provide backward compatibility, the PowerPC CPU is backed by comprehensive PPC Libraries which provide the functionality to integrate PowerPC into an Amiga multitasking environment.

Software developers can easily optimise their programs, step by step, porting single tasks to PowerPC code, which then run in parallel with 68k tasks. Leading Amiga software vendors are preparing ported or optimised versions of their software packages already. It is anticipated that a large quantity of software products supporting the PowerPC will be available soon.

Power Boards will be delivered with a comprehensive suite of utilities, including the PPC library, as well as tools for creative users. Among them is a Public Domain GNU C compiler for PowerPC (including sourcecode), many demo programs and utilities with sourcecode. In addition to this software, free developer support is available via FTP site.

Last but not least, a PowerPC optimised version of CyberGraphX V3 with RISC optimised CyberGL/3D plus MPEG functions and libraries is included (along with a special GGX driver to support the AGA chipset) with full and comprehensive documentation.

	Blizzard 603e PowerBoard	Blizzard 603e+ PowerBoard	Blizzard 2604 PowerBoard	Cyberstorm PPC
PowerPC CPU Clock Speed	603e 160-250MHz	603e 160-250MHz	604e 150-200MHz	604e 150-200MHz
Companion CPU	68030 50MHz	68040/68060 25-50MHz	68040/68060 25-50MHz	68040/68060 25-50MHz
Est. PPC Performance MIPS SpecFP95	@ 250MHz Approx. 280* Approx. 3.5	@ 250MHz Approx. 280* Approx. 3.5	@ 200MHz Approx. 350* Approx. 7.1	@ 200MHz Approx. 350* Approx. 7.1
Memory Option SIMM Sockets	Max. 128Mb 2	Max. 128Mb 2	Max. 128Mb 4	Max. 128Mb 4
SCSI On Board	Fast SCSI-II	Fast SCSI-II	Ultra Wide	Ultra Wide
Amiga Compatibility	A1200(T)	A1200(T)	A1500/2000	A3000/4000(T)
Est. Availability	DEC '97	DEC '97	Summer '97	Summer '97

Blizzard 603e Power Board - A1200(T)

The new Blizzard 603e Power Board is an inexpensive Power Up Accelerator for A1200 system owners who already have a board with a socketed full 50MHz 68030+MMU processor (these CPUs have a gold finish to the top surface) eg.50MHz Blizzard 1230-II, III, IV or similar. Featuring a 160-250MHz PowerPC 603e RISC CPU, the board has a socket for the 50MHz 68030, expansion capabilities of up to 128Mb high speed memory and built in SCSI-II controller.

Imagine the performance from your A1200 with this low cost board!

Blizzard 603e+ Power Board - A1200(T)

The Blizzard 603e+ Power Board is the highest spec Power Up Accelerator for A1200 systems. Featuring a 250MHz PowerPC 603e RISC CPU, the board has a socket for a companion 68040 or 68060 CPU, expansion capabilities up to 128Mb of high speed memory and built in SCSI-II controller. This board is ideally suited to those owners who already use an accelerator with either a 68040 or 68060 CPU (ie. Blizzard 1240TERC or Blizzard 1260 owners or their equivalents)

If you want the BEST from YOUR Amiga A1200 - this is it!

Blizzard 2604 Power Board - A1500/2000

If you own either an A1500 or A2000 you can now take advantage of PowerPC technology with this 604e CPU RISC based board which has a socket for a companion 68040 or 68060 CPU, expansion capabilities up to 128Mb of high speed 64-Bit memory, built in Ultra-Wide SCSI controller and a high performance expansion slot for expansions such as the CyberVision PPC. This board is ideal for owners of accelerators with 68040 or 68060 processors such as the Blizzard 2040 or Blizzard 2060 owners (or their equivalents).

Want the BEST from YOUR Amiga A1500/2000? - Look no further!

CyberStorm PPC Board - A3000/4000(T)

CyberStorm PPC is the ultimate accelerator for Amiga 3000[T], 4000[T] and systems with compatible CPU slots, offer blistering 604e performance - more than 10 times faster than any 68k based accelerator on sale today! Available with clock speeds of 150, 180 and 200MHz, the companion socket for the 68k processor accepts either a 68040 or 68060 CPU. The board provides 64-bit wide extremely fast memory expansion using pairs of standard SIMMs, dynamically shared by the two CPUs. Additionally, CyberStorm PPC comes with a DMA driven Wide ULTRA SCSI controller on board offering transfer rates of up to 40Mb/sec for even the most demanding of professional applications. A 32Bit high speed expansion connector, with DMA access to the main memory, is also provided for later upgradeability.

The 200MHz version of the CyberStorm PPC provides performance of more than 350 MIPS or approximately 8.1 SPECint95 and 7.1 SPECfp95*... breathtaking speed that goes far beyond that offered by most PC systems. In the second half of the year, an advanced graphics board will become available for the CyberStorm PPC expansion slot, providing a subset of the innovative CAIPIRINHA custom chip. By having a stand alone version of the DLRP (Display List Risc Processor), this board will offer superior display capabilities through higher VRAM-based resolutions, pixel depths and speeds, as well as the potential to begin developing software supporting the functionality of the forthcoming A\BOX system.

PRICING AND AVAILABILITY:

Options with or without 68k CPUs will allow users to fit the CPU from their existing accelerator. Delivery of Power Boards is scheduled for Summer 1997 following finalisation of CE approvals. Call now for full details.

Special prices available to existing BLIZZARD & CYBERSTORM board users

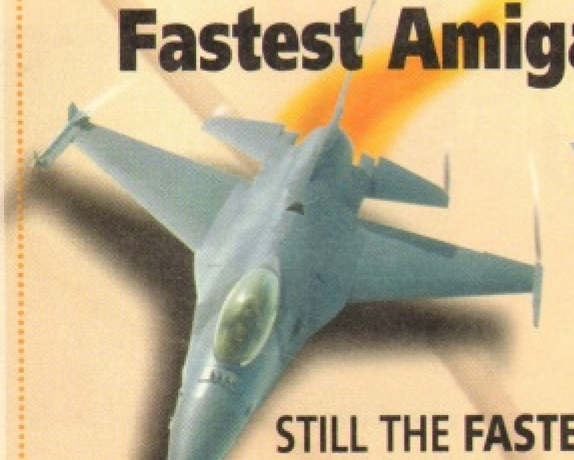
Blizzard 603e/603e+ Board...	160MHz	200MHz	250MHz
with Empty 030/040/060 Socket	£269.95	£359.95	£429.95
with 68030/50MHz fitted	£302.95	£392.95	£462.95
with 68040/25MHz fitted	£305.95	£395.95	£465.95
with 68040/40MHz fitted	£331.95	£421.95	£491.95
with 68060/50MHz fitted	£466.95	£556.95	£626.95

Cyberstorm PPC 604e Board...	150MHz	180MHz	200MHz
with No Processor	£479.95	£549.95	£629.95
with 68040/25MHz fitted	£519.95	£579.95	£669.95
with 68040/40MHz fitted	£549.95	£609.95	£699.95
with 68060/50MHz fitted	£709.95	£769.95	£859.95

**Quoted performance figures are estimations based on specifications from Motorola/IBM and are relevant to the PowerPC processor only. Prices include VAT @ 17.5%. Owners of other makes of board or those who don't already have an appropriate CPU - please call for prices.*

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CYBER BLIZZARD SPEED

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BRAND NEW...

CYBERVISION PPC

Estimated Availability FEB '98

HIGH END GRAPHICS CARD for...
PowerUP, CyberStorm PPC and Blizzard 2604 PowerBoards

The CyberVision PPC is a high performance graphic card which can be installed on the expansion slot of the PowerPC 604e based PowerUP Accelerators, the CyberStorm PPC and the Blizzard 2604 Power Board. The use of CyberVision PPC is highly recommended for use with the Blizzard 2604 Power Board to speed access to the ECS Chip Memory or Zorro II based graphics boards found in A1500/2000 Amigas.

Performance of CyberVision PPC benefits from the high data bandwidth achieved by direct connection to the processor bus utilising the graphics direct connector which incredibly speeds up, for example, 3D rendering/display. Breathtaking performance is enhanced not just by the ultra fast processor access into the video memory, but also the internal speed and functionality of the CyberVision PPC.

CyberVision PPC is equipped with the powerful PERMEDIA2 Graphics Controller providing outstanding 3D performance of up to 80 million textured 3D pixels/sec, with hardware accelerated rendering functions such as z-buffering, gouraud shading, fogging, blending and anti-aliasing. As the design of PERMEDIA2 hardware suits OpenGL implementation, its 3D performance can support CyberGL functionality of CyberGraphX V3 Native which is supplied with PowerUp boards. In combination with the high floating point performance of the PowerPC 604e processor, a breathtaking performance in professional 3D applications can be achieved. Additionally, the PERMEDIA2 processor supports functions such as colour space conversion, chroma keying and XY-Scaling which is used by the software MPEG decoding routines of CyberGraphX V3 Native.

- 64Bit Wide SGRAM with data throughput of up to 800Mb/sec - allows ultra fast RAMDAC to display up to...
  1280 x 1024 in true colour at 85Hz screen refresh rate and...
  1600 x 1200 in true colour at 60Hz or high colour at 85Hz.
- 4Mb or 8Mb Display Memory options

CyberVision PPC... 4Mb Display Version — **£CALL FOR LATEST NEWS**
CyberVision PPC... 8Mb Display Version — **£CALL FOR LATEST NEWS**

EASY TRAPDOOR INSTALLATION... No modification necessary. Reliable low heat output.

1260 TURBO ACCELERATOR MEMORY BOARD



A1200 TURBO ACCELERATOR and MMU/FPU
50MHz 68060 - 0Mb Standard, expandable to 64/192Mb
38.71MIPS with single sided 60/70 Nanosecdnd SIMM fitted.

Offers Amiga A1200 owners FULL 68060 POWER with a board that simply plugs into the trapdoor slot. Your A1200 will then operate at TWICE or even THREE TIMES THE SPEED of an '040 based upgrade and up to FIVE TIMES THE SPEED of a standard A4000! Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

Blizzard 1260 Turbo 50MHz 68060 and MMU/FPU, 0Mb 32Bit Fast RAM, exp. to 64/192Mb **£319.95** LOWER PRICE!

EASY TRAPDOOR INSTALLATION... No modification necessary. Reliable low heat output.

1230-IV TURBO ACCELERATOR MEMORY BOARD



A1200 TURBO ACCELERATOR and MMU
50MHz 68030 - 0Mb Standard, expandable to 128/256Mb
9.91MIPS with 60 Nanosecond SIMM fitted.

The highest performing 68030 Accelerator available for your A1200. With its 50MHz 68030 and MMU, the 1230-IV offers BETTER PERFORMANCE at a LOWER PRICE. With a SysInfo rating of 9.91 (using a 60 n/s SIMM) you can see the 1230-IV is very fast... a performance gain of up to 500% is achieved! Via its Fast Expansion Bus, an optional SCSI-2 Controller module can easily be fitted. An industry standard SIMM socket provides for up to 128Mb of auto-configuring 32Bit Fast RAM (up to 256Mb with the SCSI-2 option using its extra SIMM socket).

Blizzard 1230-IV Turbo 50MHz 68030 and MMU, 0Mb 32Bit Fast RAM, exp. to 128/256Mb **£89.95**
Fast 60 Nanosecond SIMM RAM Expansions - 32Bit, 72Pin **£Call**
Motorola Maths Co-Processor - 68882 PGA type FPU, 50MHz **£39.95**

LOWER PRICES!

BLIZZARD SCSI-IV KIT



SCSI-2 MODULE for 1230-IV, 1240TERC & 1260, & ADDITIONAL 128Mb SIMM SOCKET
(Fast SCSI-2 DMA Controller - upto 10Mb/s transfer rates with additional SIMM socket/extra RAM)

Blizzard SCSI-IV Kit **£59.95**

1230-IV and 1260 FEATURES

- May be disabled with simple keystroke on boot up - for full games compatibility, even badly programmed/older software
- Battery backed self re-charge Real Time Clock
- High performance expansion with full 32Bit wide DMA
- Easy trapdoor installation - no modifications required
- 1230-IV features PGA FPU socket allowing optional 50MHz 68882 FPU

CYBERVISION 64/3D



64-Bit ENGINE A2000/3000/4000 (T Series) 3D VERSION 24-Bit COLOUR ACCELERATED GRAPHICS CARD.

LOWER PRICES!

For all Zorro-3 and Tower System A1200s with Zorro II backplanes. The core of this great board is the VIRGE GRAPHICS CHIP from S3. With 3D capabilities, it's able to process complex 3D functions in hardware (eg. shaded & textured surfaces) with Trilinear Filtering and Shading/Fogging for super realistic Real Time 3D Rendering. When used with CyberGraphX 3D library, Cybervision 64/3D can even offer a broad range of 3D facilities for any software developer.

CyberVISION 64/3D... 4Mb Version **£139.95**

MPEG Decoder - added to the Feature Connector to provide real time MPEG audio and video decoding at full size custom screens or, in Workbench windows (HQ display using 16/24Bit modes from CyberGraphX Workbench). Stereo audio output is provided via the supplied dedicated line output jack. Upgrade to a Cybervision 64/3D and MPEG bundle (from previous Cybervision 64) for a special low price! **£149.95**

Monitor Switcher - with integrated scan line doubler. Designed to fit into the Amiga slot, this gives full automatic switchover from the standard Amiga signal to Cybervision 64/3D's output. Both cards may be fitted inside A3000/4000 models leaving three Zorro-III slots free. **£69.95**

CYBERSTORM II



AMIGA 68060 ACCELERATOR

LOWER PRICES!

Cyberstorm II is an ultra powerful graphics accelerator. When you fit a Cyberstorm II 68060 Accelerator to YOUR A3000, A3000T, A4000 or A4000T you can for example, render a graphic with Imagine 2.0 software in just 2.4 minutes! Compare that with 10.34 minutes on a standard A4000 '040/25!
With no jumpers, both Cyberstorm II models are fully plug and play and, A4000 users even have the option of a SCSI-2 Module if they wish (A3000s already have SCSI built in).

- Up to 128Mb of standard SIMMs can be installed and you can even transfer the 72Pin SIMMs from your Amiga A4000 straight onto your new Cyberstorm.
- Optional SCSI-2 Module
- If your budget currently only covers the cost of Cyberstorm II 68040ERC, you can always upgrade later to the full 68060 processor for the extra power!

Cyberstorm II 68060/50 50MHz 68060 - 0Mb, Expandable to 128Mb **LAST FEW AVAILABLE...** **£389.95**
Cyberstorm II SCSI-2 Module **£69.95**
Cyberstorm II SIMM RAM Expansions (Please call for a range of SIMM prices) **£Call**

CYBERSTORM III



AMIGA 68060 ACCELERATOR

BRAND NEW...

NEW Cyberstorm III is the latest high end 68060 Accelerator Board for YOUR A3000, A3000T, A4000 or A4000T (or system with compatible slot). Features a high performance 68060 processor at 50MHz clock speed, a memory expansion option for up to 128Mb of ultra fast 64Bit memory, a Wide-Ultra-SCSI controller on board and an expansion slot for high performance expansions such as the CyberVision PPC.

- Up to 68Mb/sec sustained memory transfer rate - ideal for applications demanding the use of large amounts of data. Memory design of the Cyberstorm III is 50% faster than the Cyberstorm II resulting in real world application performance increases of up to 25%!
- Wide-Ultra-SCSI Controller onboard
- Expansion up to 128Mb of ultra fast 64Bit memory
- Expansion slot for high performance expansions - eg. CyberVision PPC etc,

Cyberstorm III 68060/50 50MHz 68060 - 0Mb, Expandable to 128Mb **£469.95**
Cyberstorm III RAM Expansions (Please call for a range of RAM prices) **£Call**

MOTOROLA MOTIVATED

Blizzard and Cyberstorm products use MOTOROLA 68030 and PowerPC series processors. They run **WITHIN** the electrical timing specification laid down by Motorola to prevent any possible overheating/reliability problems. So, when you pay for a 50MHz CPU for example, that's exactly what you get... not a 40, 33 or even a 25MHz CPU "clocked" to 50MHz! Look out for the **MOTOROLA MOTIVATED** logo - your guarantee of our commitment to quality and reliability - **BEWARE** of "clocked" CPUs! T/ERC and ERC processors used on selected boards are recycled and vigorously tested 68040 CPUs operating at 40MHz - an excellent guaranteed and competitively priced alternative.

What the Magazines think...

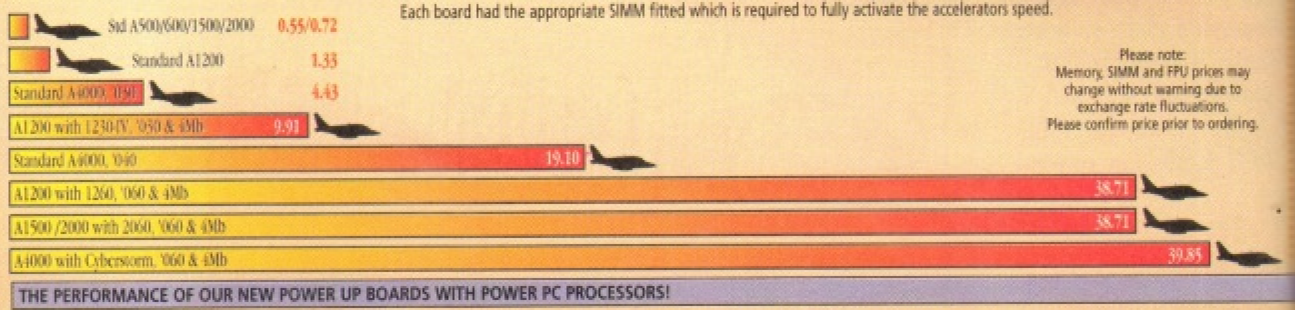
Blizzard products have consistently achieved the highest magazine accolades and awards!

Amiga Shopper *"...1260 is destined to become the ultimate object of desire for A1200 owners."* - 91% STAR BUY Award
Amiga Computing *"...If you want the fastest Amiga in the World, get this board"* - 92% BLUE CHIP Rating
Amiga Format *"...Ride on the fastest A1200 in the World..."* - 95% GOLD Rating

OUR RANGE HAS WON MORE AWARDS THAN ANY OTHER

JUST COMPARE THE PERFORMANCE FIGURES FOR YOURSELF!

Comparative MIPS performance figures measured using SysInfo.
Each board had the appropriate SIMM fitted which is required to fully activate the accelerators speed.



Please note:
Memory, SIMM and FPU prices may change without warning due to exchange rate fluctuations.
Please confirm price prior to ordering.

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The revolutionary S-VHS **ProGrab™ 24RT Plus** with Teletext is not only the best way to get crisp colour video images into your Amiga, from either live broadcasts or taped recordings, it also costs less than any of its rivals. This real time PAL/SECAM/NTSC* 24-Bit colour frame grabber/digitiser has slashed the price of image grabbing on the Amiga and, at the same time, has received rave reviews for its ease of use and excellent quality results. ProGrab™ has earned honours from just about every Amiga magazine and Video magazines too! And... with ProGrab™ you needn't be an expert in Amiga Video Technology, a simple 3 stage operation ensures the right results... **Real Time, after time.**

STAGE 1

Select any video source with S-VHS or composite output. This could be your camcorder, TV with SCART output, satellite receiver, domestic VCR/player or standard TV signal passing through your VCR/player... the choice is yours.

STAGE 2

With ProGrab's software, select an image you wish to capture using the on screen preview window and Grab (because the hardware grabs frames in real time, there's no need for a freeze frame facility on the source device). Once grabbed, simply download and view the full image on your Amiga screen. ProGrab also includes a Teletext viewing and capturing facility from either TV or satellite sources.

STAGE 3

Use the 'grabbed' image with your favourite word processor, DTP or graphics package. ProGrab really does make it that simple!



ProGrab™ 24RT Plus...

- Supports all recent Amigas and is also fully AGA Chipset compatible. You can render images in any Workbench screen mode resolution including HAM8 mode (Amiga RAM permitting).
- Saves and Loads images in IFF/ILBM, IFF/ILBM24, JPEG, BMP, PCX, and TARGA file formats. ProGrab saves animations as Anim5 files and animations with sound (requires PCMCIA interface and separate sound sampler) as Anim5 + 8SVX files. A range of image processing effects, palette computing routines (AGA only) and dithering methods are featured in ProGrab Version 2.6.x. Photogenics fully supports ProGrab with a custom 'Loader' to enable grabs directly from within the program - this direct input method will save YOU more time when handling large images.
- Software has built in mono and colour animation facilities. Number of frames is dependant on Amiga RAM.
- Release 2.6.x software now includes... Additional Teletext Facilities - with either terrestrial or satellite TV signals.
  Larger Preview Window - double resolution and four times area of previous ProGrab software.
  International Support - now compatible with composite PAL, SECAM and NTSC - straight from the box.
  Larger Preview Window - double resolution and four times area of previous ProGrab software.



ProGrab™ 24RT Plus costs just £99.95 LOWER PRICE!
and is supplied with just about everything you'll need♦...

- ProGrab™ 24RT Plus Digitiser
- Latest ProGrab Version 2.6.x Software
- Mains Power Supply Unit
- Parallel Port Connecting Cable
- User Manual
- Input sockets for Composite and S-VHS.

♦ *A video source cable will be required to match your own equipment - ask us for details.*
* *Standard ProGrab hardware is PAL/SECAM/NTSC compatible. Interlace mode options are available with PAL & SECAM only.*
ProGrab supports any Amiga with Kickstart 2.04 or later and a minimum of 1.5Mb free RAM.

PCMCIA Interface - A600/1200

ProGrab's optional PCMCIA Interface includes the latest version software and extends performance for serious or professional users - offering the following benefits...

- Faster downloading times (up to FIVE times quicker)
- Improved animation speeds of up to 11fps (mono) and 3.5fps (colour)
- Saving of animations direct to your Amiga's hard drive
- Freeing of your Amiga's parallel port for use by a printer or other peripheral
- Sound sampling and animation capabilities (separate sound sampler required, see right)

PCMCIA Interface LOWER PRICE! £29.95

Stereo Sound Sampler

Fantastic high quality 8-Bit Sound Sampler specifically designed for use with the ProGrab 24RT digitiser (PCMCIA Interface is also required).

This Hi-Fi sampler features the same 30MHz A/D convertor used in the ProGrab, maximum frequency is therefore only limited by your Amiga hardware.

Featuring a band width of 40Hz to 20KHz, quality is higher than standard samplers.

Hi-Fi Stereo Sampler £24.95

ProTel™ Terrestrial/Satellite Teletext Decoders

Amiga or PC add ons for grabbing terrestrial or satellite TV Teletext pages which don't feed a dedicated Teletext TV/Video to operate... required signal is simply the output taken from a standard VCR or a TV that provides a suitable video out signal. Once information has been downloaded, ProTel allows you to view pages instantly... no more waiting whilst your TV searches!

ProTel™ for Amiga
Stand alone unit designed to match your Amiga allowing files to be exported as ASCII Text for use in your word processor or saved as IFF graphics for DTP presentations.
ProTel™ Amiga Teletext Decoder £44.95

ProTel™ for PC NEW
ProTel PC Teletext Decoder - internal ISA PC card:

- Friendly software
- Capture speeds of 1000 pages in 2 mins
- Background tasking • Easy configuration
- Save page files (ASCII, BMP, ProTel formats)
- Native 32Bit Windows '95 application
- Requires 386DX PC and 8Mb RAM (12Mb Rec.), Windows '95/3.1 or Workgroup 3.11, VGA display, Mouse and 1 free 8/16Bit ISA slot - MINIMUM
- PAL and SECAM

ProTel™ PC Teletext Decoder £29.95

Camcorder User commented... "If you're looking for a high resolution 24 bit digitiser then, at this price, ProGrab 24RT represents great value for money."

ProGrab™ - Voted as The Best Video Hardware *product for the Amiga. Especially pleasing because the award comes from Amiga Shopper magazine's readers... Satisfied Customers!*

ProGrab™ - Amiga Format 95% Gold Rating *and comments like... "ProGrab 24RT Plus is quite simply the digitiser to get", "Incredible value for money - no other digitiser offers so much for so little" and "Offers far more features than any other digitiser near the same price"*

ProGrab™ - Amiga Shopper 95% STAR Buy *and remarks like... "Sharp, crisp and faithful to the original colours, we were mightily impressed" and... "Highly Recommended. Whether you are a Videographer or a Graphic Artist, look to the ProGrab 24RT Plus. It's a winner"*
Hi-Fi Stereo Sampler - Amiga Shopper 92% STAR Buy, April 1997.

CU Amiga said ProGrab™ is... "Just the job for beginners and semi-professionals on a tight budget" and, "very hard to beat. For the money, nothing can touch it"

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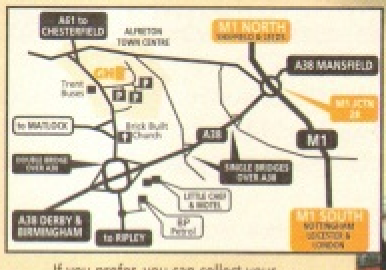
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THE APPLE ALTERNATIVE

IF YOU'VE REALLY GOT TO BUY A NEW SYSTEM TODAY...
the next best thing to your Amiga could be an **Apple Macintosh.**

BUT WHY MACINTOSH?

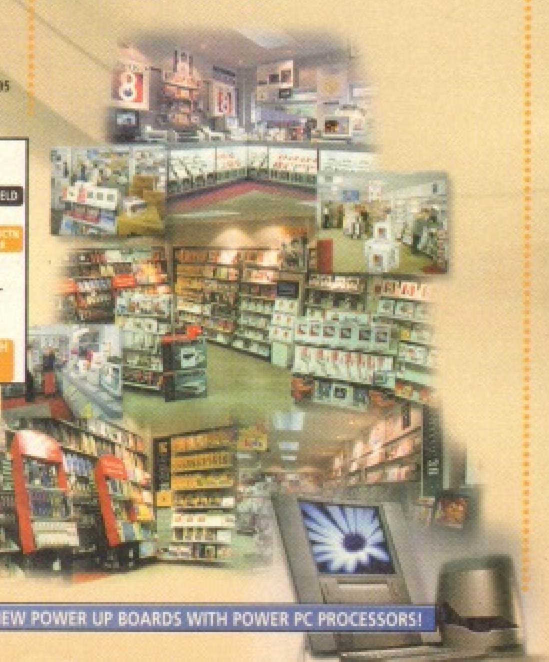
- Just like your Amiga, all Macs are Motorola based but have had the advantage of PowerPC RISC CPUs for some time... remember, even Pentium PCs in Windows™ systems are still merely CISC processors!
- Like the Amiga, Macs were designed from the outset to be an easy to use system with their windowing environment fully integrated - not bolted on later. And... Macs not only outperform other PC systems, but have recently become very competitively priced too.
- Software: there are over 1800 titles specifically written for PowerPC Macs alone, plus 1000s from pre PowerPC days which are still compatible. Industry standards such as Word, Pagestream, Word Perfect, FileMaker Pro, Excel, Quark XPress, Photoshop and many others have been developed for Macs.
- Creativity: Apple still lead the creative world - With 80% market share in colour publishing, most web sites being authored with Macs and post production video editing dominated by the Macintosh - you can see the advantage. *The magazine you are reading now was published using Macs!*
- Internet and Communications: all Macs are Internet Ready - many include built in modems and fax facilities etc. Standards like Netscape & Internet Internet Explorer mean the Net is easily accessed. INTERNET READY
- Connectivity and Expandability: all Macs have built in networking and external SCSI connections - adding printers, drives, cameras, scanners etc. really is plug & play!
- Education and Edutainment: Macs offer you the advantage of all the latest software from the likes of Dorling Kindersley, Microsoft etc. to help with the whole family's learning skills.
- Multimedia: Apple is the World's Number 1 Multimedia PC Vendor!
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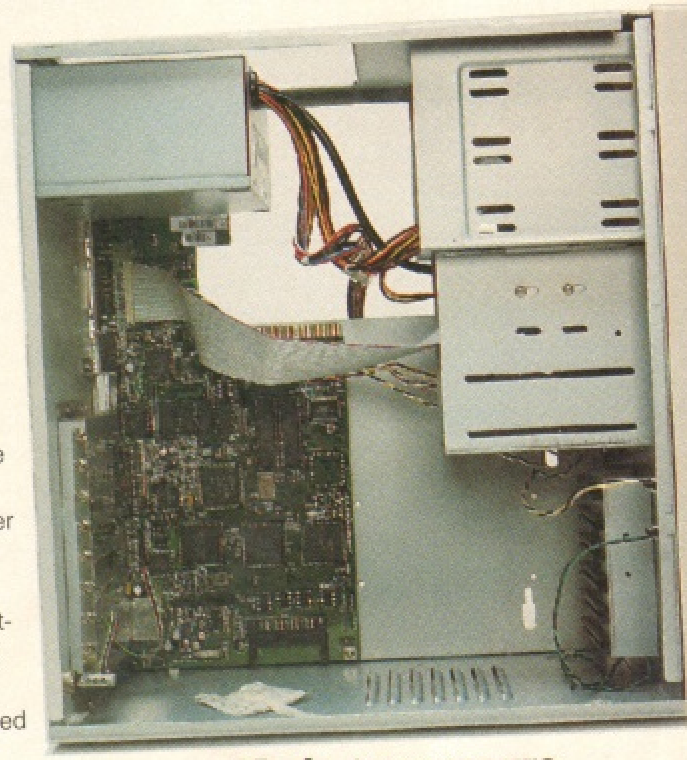
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Power Tower

■ Price: £149.95+ see box for options ■ Supplier: Power Computing ✆ +44 (0) 1234 85 1500

Power Computing throw down the gauntlet with an impressively easy to construct tower case



▶ A clean , simple interior. The very model of easy construction.

Step aside, Micronik, ICS and Eyetech, there's a new heavyweight challenger in the ring and it has a mean streak in its eye. Power Computing's new tower case has a sleek professionalism about it which makes the rival options look uncomfortably DIY in comparison.

It has the purpose built look of the Micronik Infinitiv case, the solidity of the ICS tower and the easy fit mentality of the Eyetech EZ-Tower. When we initially saw this box on display at Computer '97 we could see that this was a seriously clever piece of kit, enough so that we were dubious about the likely price. Now it's here for us to give the full treatment, and the price turns out to put it on the same footing as its direct rivals.

When we produced our definitive guide to putting your Amiga in a tower back in our April, May and June 1997 issues we were expecting them to be popular, but we never quite expected the huge response they generated, nor the explosion of interest in tower systems that has followed. With no middle ground between the cheap but limited low end Amigas and the expandible but expensive high end Amigas, a towerised A1200 has always seemed like a popular option, but it is one that neither Commodore not Escom pursued.

The A1200 motherboard is simply not designed to be treated this way, so it's a lot of work to make a tower cased Amiga work properly. All that custom construction means conversions were generally considered a luxury. A drop in the prices of Zorro cards and increasingly powerful software has gone a long way to changing all that. Possibly an even more important factor has been an increased desire for the facility with which a tower cased Amiga can have storage devices added to it. The prices of 3.5" hard drives has plummeted and the desire for Zip drives, LS120s and most particularly CD-ROM drives has soared. Next on the horizon is the advent of the Blizzard PowerPC accelerators for the A1200, recommended for use in towers only, so yet more people are going to be faced with the thorny issue of fitting their A1200 to a tower case.



▶ It may look at first a little like a deep sea fish which has swallowed some traffic lights, but I like it.

Made to measure

Fitting is what the Power Tower is all about. With an elegant, fully shielded metal case, a good range of drive bays and a 200 Watt power supply, the only thing the Power Tower seems to miss sitting on your desk is a "Powered by Amiga" logo , but even this may well be coming soon. Turn the tower around and you will see that like the Micronik Infinitive case, this sports proper cut – outs on the back for the rear ports of the Amiga 1200's motherboard. The panel is oddly recessed into the back of the case, the reason why being clear when the case is opened up. Inside is a cradle, not unlike the one in the Micronik Infinitiv case, which holds the motherboard proper. The cradle fits into the side of the case, a small L fold bearing the cut – outs.

To connect the A1200 motherboard, it is first necessary to remove it completely from the original case. The plastic clamshell of the console box is unscrewed and the keyboard

The available bundles.

Bundle 1 - Case, keyboard interface, floppy drive extension cable, power connector, keyboard. - £149.95

Bundle 2 - As above plus 4-way buffered IDE interface and IDEFix '97 software. - £180.90

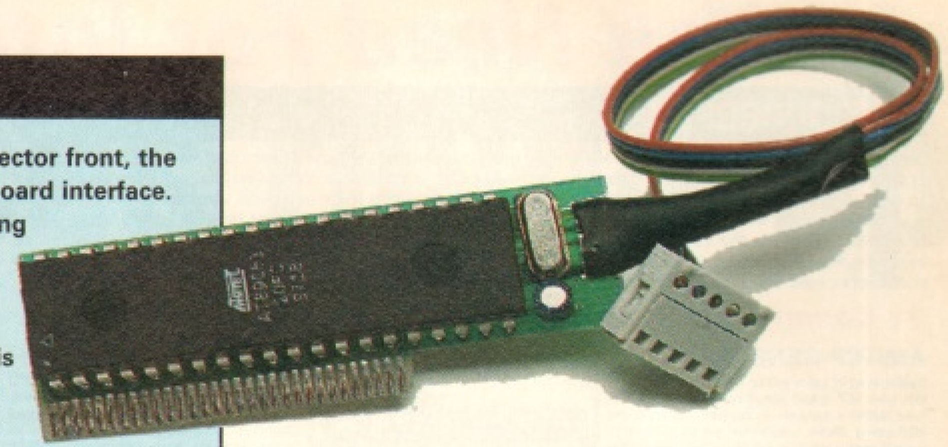
Bundle 3 - Amiga clone, as bundle 2 with an A1200 motherboard fitted. - £349.95

Bundle 4 - As above, but also including 24x CD-ROM drive, 1.7GB hard drive, Blizzard 68030/50 accelerator, 16MB fast RAM- £729.95

Power can also supply custom bundles, phone them for details.

Cunning Connections

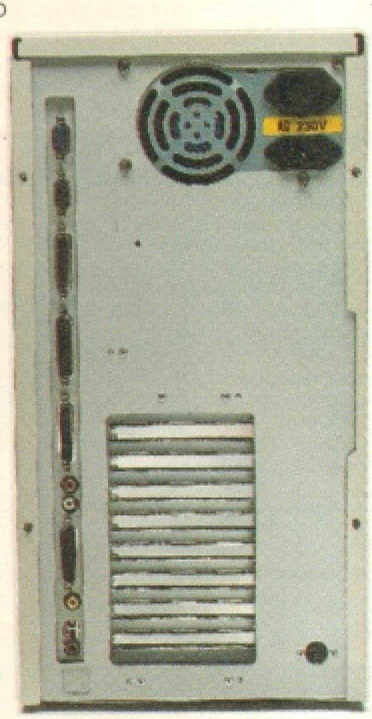
Not content with walking all over the opposition on the power connector front, the Power Tower has similar plans for the LED connections and the keyboard interface. While each of its rivals has ways of coping with the trick of connecting the power, disk drive and hard drive LEDs, none is as simple as the one the Power Tower provides, all the wires soldered to a PCB which just plugs straight down into the appropriate place on the motherboard. The keyboard interface is stunningly simple. A socket is already mounted in the rear of the case. This is linked, via a push-on connector, to a small PCB bearing a single chip which plugs straight into the keyboard ribbon header. The adaptor is a PC keyboard only type, unlike some autosensing rivals, but even the most ardent PC haters shouldn't be bothered about this; you might not like their OS, but they've got better keyboards very cheap. One is, in fact, included in the price of the tower.



▲ **Here it is, a keyboard interface of supreme simplicity. Works damn well too.**

ribbon, power LED and disk drive connectors removed. The metal shield then has to be taken off. Small fold over tabs hold the top part in place, a few moments work with a long fingernail is all that is necessary to remove this. The bottom half of the shield has cutouts which the ports poke through, small hex head socket screws holding it in place. Removing these can be a little fiddly, but a t-bar socket wrench is thoughtfully supplied, which makes the task very simple.

Once the shield is entirely removed, the motherboard can be simply slotted into the cradle and the hex head socket screws put back in to hold it in place. We found the machining of the cut-outs to align perfectly, making this process a breeze. Two machine screws connect the other end of the board to the cradle via a couple of hex clearance bolts, and a couple of stand off pillars support the motherboard in the middle, keeping the whole lot perfectly stable.



Powering the board isn't entirely straightforward. PC motherboards, not to mention the new generation of Amiga baby AT form factor boards designed for this type of case have a standardised power connector on them, the A1200 doesn't. The correct voltages are all there, but getting at them poses a bit of a problem. ICS opted for a connector which leads out of the tower and back into the socket at the back, a good if slightly ugly solution. Eyetech made it prettier by connecting an adaptor to the floppy power lines on the board, but this does not supply the -12v line, so necessitating a flylead pin which slots into the centre of the rear power connector, not an ideally reliable solution.

The Power Tower has the best method yet. Fundamentally similar to the ICS solution, the cable is custom made rather than custom modified. The rear connector is a flush mounting L-shaped fitting which doesn't project beyond the case at all, only the similar device available as an optional extra for the Micronik case comes close. With a Micronik Zorro board fitted, the ICS and Infinitiv cases can draw their power internally, but the Power Tower can go this route too.

Once all this is done, and the connections have been made (see box above) all that remains is the floppy disk drive. The internal unit slots into the drive bay behind a proper faceplate, and a long floppy cable is supplied. It was here that we hit our first problem – the hole in the faceplate for the disk eject button was too small. Power told us that this hadn't happened for them, so we assume that the one we got shipped had the wrong faceplate in it, and you shouldn't have the same problem.

Finally any hard drives, CD-ROM drives etcetera can be connected in the normal manner. There are two 3.5" floppy drive bays, one with the faceplate pre-installed, and a further two internal hard drive bays. Three 5.25" bays complete the score, giving the Power Tower as much drive room as the ICS tower but rather less than the huge Eyetech EZ-Tower.

Smooth operator

So how does it all work? Once assembled there is not a huge amount to choose between tower solutions, but this comes out very well. In terms of stability it is excellent, something you would expect from the solid metal case.

The keyboard interface, one of the more variable items, is as good in operation as it is in assembly, mapping the full Amiga keyset including a keyboard reset and running smoothly and flawlessly. It does well on the looks front too – instead of the normal little LEDs on the front, this has small banks of shielded LEDs in red, green and yellow which glow gorgeously from under the ridges on the front panel. A sticker set is included to let you label all the rear ports. The reset switch can be connected one of two ways – if you install a Micronik Zorro board you have a reset line supplied, otherwise you have to solder header pins onto two surface mount components on the A1200 motherboard. This is a real let down for the otherwise ultra easy construction. It is a pity there is not a header on the keyboard interface to take advantage of the keyboard reset line the way there is on the Ateo keyboard interface used in the ICS tower.

Connection of IDE devices is best left to the optional 4-way buffered IDE interface and excellent IDEFix '97 software which Power supply for an extra £30.95. Like the ICS case, this uses the same basic layout as the Micronik boxes, so Micronik PCMCIA right angle adaptors can be used, as can Micronik (or presumably Ateo) busboards. We hit something of a problem with this case when it came to fitting a busboard – the keyboard interface sticks out too much, getting in the way. This isn't a fatal problem as with care the two can be jammed together, but it's not the best arrangement either.

The Power Tower is simply the best tower case we have yet tested. It is as easy to construct as it is ever likely to get, and comes with good instructions. Like all things in this world it is flawed, certainly, but none of the flaws are too bad. If you've been eyeing the plethora of options for tower conversions lately, your decision has just been made rather easier.

Sure there are still advantages of the other towers – the EZ-tower's large bay capacity and dual motherboard facility, for instance – but for the majority of users who simply want the extra expandability and bigger power supply a tower provides, this heavyweight from the Power stable KO's the opposition in the first. ■

Andrew Korn

POWER TOWER

System Requirements: A1200 motherboard, screwdriver, basic DIY skills

Ease of use 94%
Every effort has been made to ensure the easiest possible construction.

Performance 92%
A few minor niggles, particularly reset and busboard problems, otherwise excellent.

Value for money 88%
Not stunningly cheap but everything is included.

OVERALL
The most professional tower case yet, a very hard act to follow.

93%

All You Need For Internet And Comms!

netconnect v2

NetConnect v2 is even easier to connect to the Internet! Launch the new Wizard GUI, choose your modem, enter a few user details and let the Wizard do all the rest for you! Simple! With version 2 you don't even need to worry about the provider - everything is automatic, everything is point and click! ***Amiga Format*** concluded about **NetConnect v1** (June 97 issue): "Almost the perfect package for the Amiga Internet user", "If you need to get online, this is the easiest way to do it" and "It's good value for money too - especially the bundle including the 33.6K modem." We have listened to our NetConnect v1 users, noted their comments and added some other new features. NetConnect v2 is available on CD-rom and floppy disk.

11 Commercial Programs within NetConnect v2!

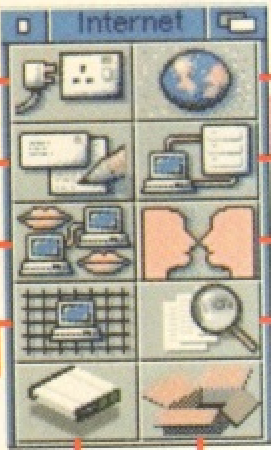
AMITCP-GENESIS
NetConnect v2 users will be the first people to use this new TCP stack! Based on AmiTCP Pro, we have added a number of changes - new Wizard, MUI based dialler, multi-user support, 'events' control, status window (time on 'net, connection speed), new prefs.

MICRODOT-II
A superb combined email and newsreader within one GUI! Contains all the major features you would expect - MIME attachments, support for POP3/APOP, search function, multiple signatures, multiple user support, Arexx port etc.

AMIRC
Chat online with friends about topics, join conferences, organise mass meetings. The IRC is one of the most addictive elements of the Internet - AmIRC is the best Amiga IRC client.

AMTELNET
Telnet into remote computers (from anywhere in the world) - edit files on a computer in Germany from your Amiga, maintain directories for your web pages, check the status of the network, play online games.

AMTERM
AmTerm is a communications package which allows you to connect to a BBS, to another user (direct link), transfer files via a serial connection (Amiga<>Amiga, Amiga<>PC etc).



VOYAGER-NG
Voted the best Amiga web browser by CU Amiga - supports SSL for securing ordering, HTTP 1.1 (for the fastest web access) fastmem AGA support (use fast mem to store images) and very soon JAVA™, Javascript and AGA fastmem support!

AMFTP
AmFTP is the ultimate Amiga FTP client. Download/upload programs from any FTP site, also supports ADT to allow you to download the latest files from the Aminet and Archie to search FTP sites for files.

AMTALK
A direct chat client for the Amiga. Acts as an online answerphone service for people to leave messages. You can talk directly 'realtime' to friends on the Internet.

NETINFO
NetInfo is a cool tool for analysing the network and the people connected to it - 'finger' your friends to see if they are online, 'ping' servers to find the response speed.

X-ARC
X-Arc is the Amiga's answer to WinZIP™ - automatically decode LHA/LZX/ZIP files, edit the contents of these archives, create your own archives. Full integrates with NetConnect v2!

NetConnect v2 is a state-of-the-art Internet package aimed towards Amiga users wanting to connect for the first time (absolute Internet beginners), those who have been connected a few months (novices) and now, due to the keyfile nature of the software, is suitable for advanced Internet users who want to use the modules contained within NetConnect with their existing TCP stack. **NetConnect v2 enhancements include:**

- **MIME Prefs** - Central MIME prefs interface means that you only need to setup file types once with on nice interface! This saves masses of time and effort (esp. for beginners).
- **Setup Wizard** - makes configuring your ISP a doddle. Choose your modem, enter some user details and then the rest of the process is completely automatic!
- **New programs** - AmTalk, NetInfo and X-Arc (a brand new WinZIP™ style archive management tool. Downloads lha/lzx/zip files from Voyager etc, auto-extracts them into X-Arc's GUI and allows you to control the files).
- **Programs are now keyfile based** (can be used with any TCP stack - Miami etc)
- **Extras pre-configured**: MIME types (CD only), datatypes (CD Only), online help files etc
- **Octopus** - allows you to create multiple dock bars with point and click ease - just drag the icons you have created into the icon bar! NetConnect v2 is pre-setup with its own icon bar for ease of use.
- **Programs are now keyfile based** (can be used with any TCP stack - Miami etc)
- **Printed manual** - understand NetConnect and the Internet quickly and easily (advice from NC users!)

NetConnect v2 CD [contains many extras: datatypes, MIME types (for www browsing) and much more]	**£52.95**
NetConnect v2 Floppy Disks [only contains the core programs & online help documents]	**£54.95**
NetConnect v2 Upgrade from v1/v1.1 [registered NetConnect v1/v1.1 users only]	**£call!**

vapor software

If you are not interested in purchasing NetConnect you can also buy Vaporware Products individually either by disk, a keyfile sent via e-mail (quickest and cheapest method) or on CD-rom (currently only Voyager-NG and Genesis can be purchased on CD-rom) - CD versions have added extras such as pre-setup MIME types (VNG), HTML documentation etc.

	On CD	By Disk	By EMail
Genesis - New TCP/IP Stack for the Amiga [Available December]	£28.00	£22.00	£20.00
Miami - TCP/IP Stack for the Amiga	n/a	£28.00	£26.00
Octopus - Brand new dock bar creator [Available December]	n/a	£12.00	£20.00
Voyager Next Generation	£28.00	£22.00	£10.00
Microdot-II	n/a	£20.00	£18.00
AmIRC	n/a	£20.00	£18.00
AmFTP	n/a	£20.00	£18.00
AmTalk	n/a	£17.00	£15.00
X-Arc	n/a	£17.00	£15.00
AmTelnet + AmTerm Package Deal	n/a	£20.00	£18.00
AmigaNCP - Amiga to Psion series software	n/a	£27.00	£25.00

- *5% Discount when 2-4 Vapor products are bought, 10% Discount for 5+*

internet informer

Still unsure about connecting to the Internet? Confused by all the acronyms such as 'ISDN'? Confused about the costs? Wondering whether your Amiga can access the Internet? No need to worry any longer - we have released issue 2 of our 'Internet Informer' for Amiga users. A leaflet that offers you all the information you require in order to get your Amiga onto the Internet. Modem choices, software that is available, service providers for the Amiga, questions and answers. It also contains information about NetConnect and what we can do to get you onto the Internet. For your free copy, call us or write to us.

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high quality modems

K56Flex modems are here! Download software and web pages upto twice the speed of a 28.8 modem. 56k modems will operate at 33.6K speeds for uploading but you can cut your phone bills drastically when using the 56K technology! Isn't it about time you upgraded that 14.4 or 28.8 modem? For further information about the new K56Flex (Rockwell developed) technology contact us!

We only supply quality **branded** modems (Dynalink UK Ltd or Diamond SupraExpress), which may cost slightly more than their unbranded competitors, but they ship with a 5 year warranty, the knowledge that a UK company offers support/information and you are buying a modem with quality (Rockwell based) components.

K56Flex modems need to connect to another K56Flex modem in order to use 56K technology (make sure your provider supports K56Flex technology). Call for further technical details.

56K and 33.6K External Data/Fax/Voice Modems

- Quality branded Dynalink or Supra modem
- 33600 bps DATA/FAX/VOICE modem - true v34. Throughput to 115,200 (230,400 for K56Flex) BPS via V.42 bis data compression
- Group 1, 2 & 3 send/receive FAX (14.4)
- Voice Commands - DSVD upgradeable (by software)
- V.80 (video conferencing) capable
- Call Discrimination
- Fax on demand
- Caller ID and Distinctive Ring enabled
- Simultaneous voice and data (S.V.D.)
- Speakerphone for hands-free operation
- Upgradable ROM chip
- Includes headphones/microphones - for voice control
- 5 year warranty
- Serial cable included



£104.95

modem pack options

Various money saving packs are available. These are all based on either the 33.6k, 56k or ISDN modem plus a a collection of extras. Call us for other pack options if you have your own pack ideal

Code	Pack Contents	£ Prices
PK01	33.6 Modem & STFax	£ 89.95
PK02	33.6 Modem & NetConnect	£109.95
PK03	33.6 Modem & NetConnect & STFax	£119.95
PK04	33.6 Modem & NetConnect & Hypercom1 & STFax	£149.95
PK05	33.6 Modem & NetConnect & Hypercom3Z & STFax	£169.95

ADD £25 for a 56k Modem (instead of the 33.6k model)
ADD £50 for an ISDN Terminal Adapter (instead of the 33.6k model)

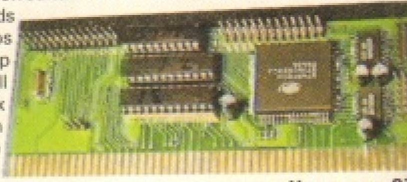
- All packs come with one month free connection to a major Internet Service Provider
- Choose between the CD or Floppy disk version of NetConnect with your modem pack
- NetConnect = v2, STFax = STFax Professional

high speed serial cards

new models!

from.. £44.95

The ***Hypercom*** range of high-speed serial cards offer your Amiga the fastest connection to the Internet, for comms and fax transfers. Available for the Amiga 1200 (these serial cards are placed within the internal clock expansion port - leaving the PCMCIA port and trapdoor free!), A1200 Towers and Zorro-II/III based machines (Zorro version suitable for A1500/2/3/4000 or a A1200 tower). These cards are currently the fastest serial cards available for the Amiga (upto 460,800bps connection). The Hypercom 3/3Z cards also ship with a buffered high speed parallel port which will drastically improve printing speeds on a laser (4x speed). The Hypercom 3/3Z cards contain a 9-pin and standard 25-pin serial ports whereas the Hypercom 1 ships with one 25-pin port. Serial and parallel drivers included. English documention.

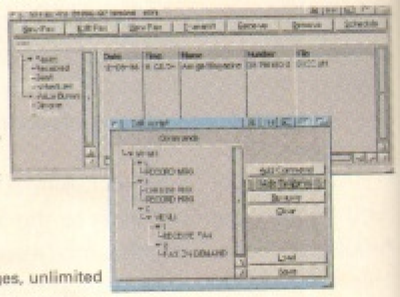


Hypercom 3Z

Model	Machine	Specifications	Price
Hypercom1	A1200	1 x 460,800bps highspeed buffered serial port	£44.95
Hypercom3	A1200T	2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec buffered parallel port	£89.95
Hypercom3Z	Zorro-2/3	2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec buffered parallel port	£79.95
Hypercom4	Zorro-2/3	4 x 460,800bps highspeed buffered serial ports	£99.95
Hypercom3i	Zorro-2/3	Expansion module for Hypercom 3Z/4 offering 2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec buffered parallel port. Just plugs onto the card, no Zorro.	£59.95

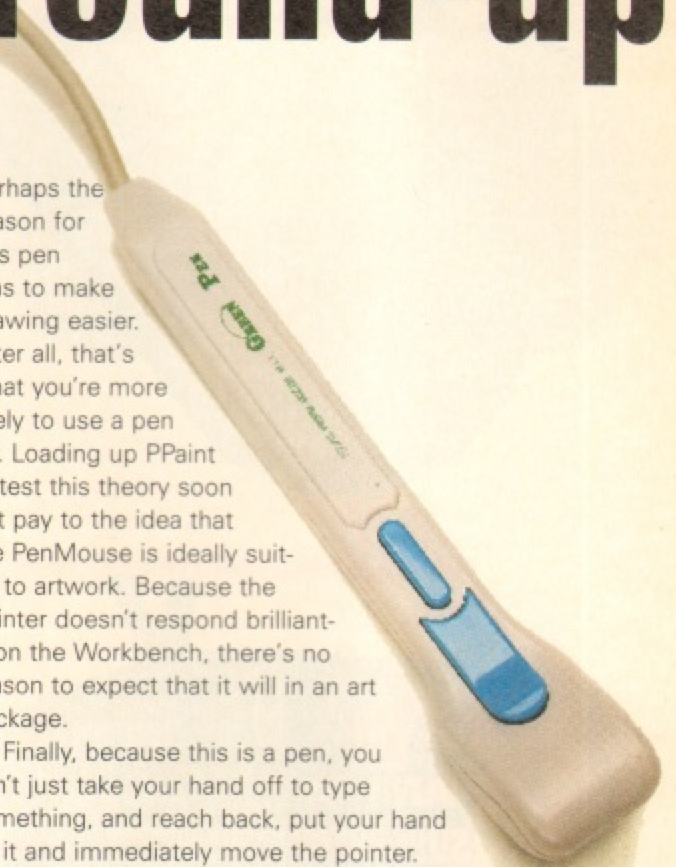
stfax professional £29.95

STFax Professional is new commercial fax program for the Amiga containing the sort of advanced features you would find within commercial PC fax software. STFax has been in the shareware for the last few months, and the brand new commercial "professional" version offers even more advanced features plus voice control for voice modems - use your Amiga as a digital answer machine, create a fax on demand service (ideal for small businesses. Allows your customers to contact you at any time and use fax on demand to remotely download facsimile information about your products!) and create advanced voice control scripts.



- **Full Fax Features:**
  - Support for all fax/modem classes (1, 2, 2.0)
  - Phonebook (store all your favourite fax and telephone numbers)
  - Scheduler (store fax messages to be sent at specified times)
  - Reports (quickly see when a fax was sent and received)
  - Datatypes support for image conversion
  - Printer driver to redirect all print-outs to a fax file (print from Wordworth, Pagestream etc!)
  - Viewer for viewing outgoing/incoming fax messages
  - Fax forward (forward faxes to another machine)
- **Advanced Voice Features:**
  - Use your Amiga as an answer machine (digital messages, unlimited storage space!)
  - Advanced voice scripting - create your own voice network or fax on demand service
  - Use your modem as a telephone (make and receive calls via STFax Pro and your modem)
  - Remote access (listen to your messages from an external source. ie. from another country!)
  - Caller-ID (see exactly who has called and left you a message)
- **Your Own Mini-BBS:**
  - One or more secure 'doors' (access areas)
  - Point and click setup
  - Allow users to upload files and send messages
  - Custom greetings and menus

Input devices round-up



PEN MOUSE PM-AM300

Features	80%
Responsiveness	75%
Construction	65%
Value for money	65%

OVERALL
Good, idea flawed design
70%

Product: Pen Mouse PM-AM300
Resolution: 250dpi
Cable: 5 ft.
Price: £12.95
Supplier: Golden Image (0181 900 9291)

Picking up this mini-hooveresque mouse for the first time wasn't the highlight of my Amiga owning life. Not only do you need to hold this implement in a totally different manner than an ordinary mouse, you also need to get to grips with the fact that it doesn't feel much like a pen either. It's larger than a pen, and doesn't have the same balance – in part due to its bulky but light-weight plastic construction. The other disadvantage is the lead. Being on the top end of the unit, it takes more effort to drag it around the mat, and the lead continually brushes against your knuckles and fingers – distracting to say the least.

When I first placed the PenMouse on the mat, the pointer didn't respond well to the pen's movements, looking more like it was being dragged through patches of oil and syrup than over a mouse mat. The solution to this problem was found when I turned the mouse mat over, and used the pen on its foam-backing. The pointer then moved around in a much more controlled manner.

The buttons on this device aren't ideally situated either. The larger (and lower) of the two blue plastic buttons is the "left" mouse button, but clicking it invariably causes the pen to move on the mat, resulting in less accuracy when double-clicking icons, for example. Because the "right" mouse button is immediately above, you don't need to move your index finger very far to click it, but then you can't hang a different finger over it like you can with a standard mouse.

Perhaps the reason for this pen was to make drawing easier. After all, that's what you're more likely to use a pen for. Loading up PPaint to test this theory soon put pay to the idea that the PenMouse is ideally suited to artwork. Because the pointer doesn't respond brilliantly on the Workbench, there's no reason to expect that it will in an art package.

Finally, because this is a pen, you can't just take your hand off to type something, and reach back, put your hand on it and immediately move the pointer. Instead – at least when you first use it – you need to look at the pen lying on the mouse mat, pick it up, position it in your hand comfortably (not easy), position it on the mat at the right angle, and *then* move it. Far too much hassle for my liking.

LOGIC SPEED MOUSE

Features	92%
Responsiveness	85%
Construction	78%
Value for money	58%

OVERALL
Great idea, shame about the price. Would it get used ?
78%

Product: Per4mer Turbo wheel.
Price: 59.99
Supplier: Epic Marketing (0500 131 486)

If you've still got that copy of Geoff Crammond's Formula One Grand Prix knocking about, load it up and plug this device in to your joystick port. There are two parts to it – a footpedal unit and a steering wheel column, complete with what the manual calls "instrumentation decals" (that's "stickers" to you and me).

Although intended for IBM compatibles, the Per4mer works very well with Microprose's Formula One Grand Prix, as it should do with any other games that can make use of analogue joysticks for input.

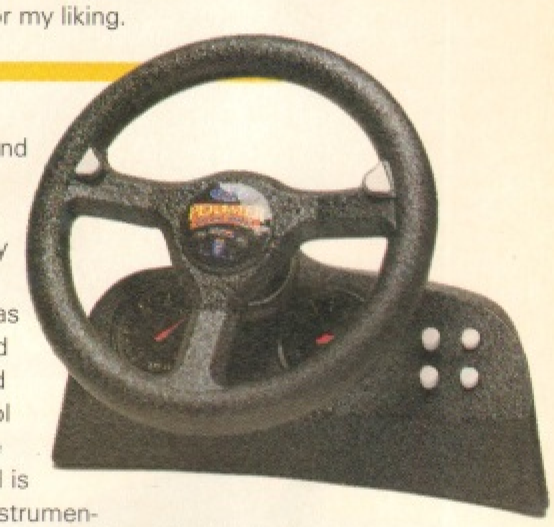
Also provided in the box are some "suction cups" (rubber feet) which pop into the holes on the underside of the steering column and prevent the whole thing from slipping all over the desk should you get too enthusiastic with your driving.

The lead from the steering column plugs into a socket on the lead coming from the footpedal unit, which then plugs into the joystick port. The leads aren't quite as long as would be ideal – the one from the footpedal to the joystick port could do with lengthening by a few feet – but they do the job.

Geoff Crammond's masterpiece definitely benefits from the added realism provided by the Per4mer. The steering column – although being constructed out of plastic – has the sort of resistance that you would expect from a steering wheel, although when you let go, it clicks back into a central position, and when turning from left to right you can feel it click in the central position rather than rotate smoothly through it.

The acceleration and brake pedals – which act as "up" and "down" on a joystick – also have just about the right amount of inertia for your foot to push against, but after calibrating them for use with Formula One Grand Prix, only the last half inch of movement in the pedals seemed to have any effect.

The two buttons on the rear of the steering wheel (behind the ones you can see on the front) are ideally situated for changing gear as you race around Silverstone, and the extra control provided by the analogue wheel is intuitive. The instrumentation decals – sorry, "stickers" – look tacky, and the four buttons on the steering wheel column could be done away with, as they don't seem to have a purpose.



If you can put up with the bulky plastic design, and don't mind shelling out 60 quid on a peripheral that may not see as much use as perhaps it should, at least consider the Per4mer.

Despite the tacky name and appearance, it brings a whole new dimension to the world of racing, and without another steering wheel/pedal combination to set it against, there really isn't a lot to fault its functionality.





Product: Logic3 SpeedMouse
Resolution: 300 dpi
Cable: 5.5 ft.
Price: £9.99
Supplier: Various stockists

This shiny white mouse is slightly larger than a standard A1200 one, and the casing slopes down at the back rather than up, meaning that you can't rest the palm of your hand on it's back when you're using it.

Despite feeling different, the screen pointer responds very well to the movements of the SpeedMouse, though not with any great speed as you may be led to believe. The buttons, described as "Feather-Touch" on the box are clunkier than those on an A1200 mouse, making a clicking sound which starts out as satisfying but quickly begins to annoy. At least you know when you've pressed one, I suppose.

On the whole, given the price of this mouse, you'd be far better off going for the Alfa Data MegaMouse-Plus. In comparison, the Logic3 SpeedMouse has a shorter cable, fewer buttons and a lower resolution. And it's 4p more expensive. Vive la difference.

LOGIC3 SPEED MOUSE

Features	75%
Responsiveness	82%
Construction	78%
Value for money	70%

OVERALL
Below-par mouse with extra clicky buttons.
76%



Product: Alfa Data MegaMouse-Plus
Resolution: 400dpi
Cable: 8 ft.
Price: £9.95
Supplier: Golden Image (0181 900 9291)

Offering three buttons and a squarer, flatter design than your average mouse, the MegaMouse-Plus is nothing special to look at. Three microswitched buttons have been squeezed into the space of the usual two, and the design of the mouse doesn't lend itself to nestling up against the palm of your hand unlike mice which raise up at the back. Having said that, it's delightfully easy to use.

Functionality wise, there's nothing to fault about the MegaMouse-Plus. It glides over the mat and the micro-switched buttons are much nicer than those on a standard A1200 mouse – clicking quietly (unlike those on the Logic3) and responsively – no risk of aching fingers here.

Another bonus is the extra-long eight foot lead. It may not sound like much, but if you have a tower situated some way from your monitor and keyboard, you shouldn't have any trouble situating the MegaMouse on your desk. At 400dpi, you don't need to move it about much either. The enhanced resolution means this mouse won't have to clock up as many miles as one with a lower dpi.

ALFA DATA MEGAMOUSE-PLUS

Features	95%
Responsiveness	98%
Construction	92%
Value for money	98%

OVERALL
Well worth a tenner of any-ones's money, penny.
96%



Product: Amiga Technologies' Amiga Mouse
Resolution: 300 dpi
Cable: 5 ft.
Price: £9.95 (Including mouse pad)
Supplier: Power Computing (01234 851500)

The response of the official Amiga mouse is good – the two microswitched buttons are very similar to those on the Alfa Data MegaMouse-Plus in terms of feel, and of a comparable size to those on the cheaper MegaMouse-E. Its asymmetrical design would seem to suggest that it is intended for use by right-handed people, but using it as a left-hander doesn't cause any problems – it may not fit the palm as snugly, but it's not uncomfortable. The left mouse button even has a smooth circular depression on its surface, which means your index finger can rest there whilst you're moving the mouse on the mat, and the buttons themselves have a similar movement to those on the MegaMouse-E – perhaps a little too much, but nothing seriously distracting.

For under a tenner, you could do far worse than this mouse (the Logic3, for instance). What's more, it even comes complete with an official mouse mat, and both sport the Amiga logo, just in case you forget what it is you bought it for.

AMIGA TECHNOLOGIES' MOUSE

Features	80%
Responsiveness	92%
Construction	88%
Value for money	82%

OVERALL
If you like the Amiga logo, chances are you'll like this.
86

ACTION PAD AM

Features	60%
Responsiveness	72%
Construction	75%
Value for money	62%

OVERALL
A short length of black cable with a weight on the end. **67%**

Product: ActionPad AM
Cable: 4.5 ft.
Price: £9.95
Supplier: Golden Image (0181 900 9291)

This control pad is nothing special. You can use it in place of a joystick, but you can't use it in place of a CD^{32} pad in games like Guardian, because it doesn't have all the buttons. As far as control pads go, at least this one's well built. It looks and feels quite sturdy, without being too heavy. Unlike the standard CD^{32} joypad, you don't feel like you're holding a glasses case.

When I started using this pad, I could only get the blue fire button working. The other buttons appeared to be redundant. Loading OnEscapee, the other buttons behaved just like the blue one. Yes, this is a control pad with 4 separate fire buttons.

The two buttons on the front of the pad could do with being slightly larger, as the right hand side of the unit looks quite bare. They don't feel as hard-wearing as the directional pad, and to make things worse, the lead is shorter than an ordinary mouse lead, which, frankly, is unforgivable for a joypad.



MEGAMOUSE-E

Features	76%
Responsiveness	86%
Construction	80%
Value for money	88%

OVERALL
Cheaper than a MegaMouse-Plus, but you get what you pay for **82%**

Product: MegaMouse-E
Resolution: 300dpi
Cable: 5 ft.
Price: £4.95
Supplier: Golden Image (0181 900 9291)

After using a 400dpi mouse, the loss of 100dpi is quite noticable. Returning to MCP's preferences to adjust the threshold and acceleration, and we're back to a more respectable level of control. One thing you cannot do with MCP, however, is give a two-button mouse three buttons, so the loss of a button from the MegaMouse-Plus is also something to mourn.

Rather than raising up at the back, the casing for this mouse raises in the middle, so it feels a lot like the Logic3 to hold – not that it's a bad thing. The buttons aren't quite as responsive as those on the MegaMouse-Plus, but they're much nicer than those on the Logic3. Another loss is three feet of cable, as this mouse only has the standard five-foot lead attached.

You could argue that the five pound reduction in price makes up for all these shortcomings, but for my money, I'd much rather spend that extra fiver than put up with the MegaMouse-E.



PRIMAX MATER TRACKBALL MOUSE

Features	94%
Responsiveness	84%
Construction	96%
Value for money	80%

OVERALL
Near-perfect design, but a little overpriced. **90%**

Product: Primax Mater Trackball Mouse
Resolution: 200dpi
Price: £39.99 (Inc. Mouse It software)
Supplier: Epic Marketing (0500 131 486)

Trackballs are funny things, and most of them look like "aesthetics" were an afterthought of the designers. Not so with the Primax Master. To be honest, it wouldn't look out of place in Q's workshop.

As this unit was designed for a PC, you need a free serial port to plug it in to, the LogiMouse software and a serial adaptor – both of which are provided in the form of Mouse It, which costs £4.99 separately.

The whole unit is an ergonomic masterpiece – the buttons on either side of the little racing-green ball offering a concave section and some raised "knobbly bits" – possibly for easy operation with wet fingers. The whole thing feels quite natural to use – your hand just rests over the unit and immediately feels at home.

The only design quirk I found was that of the middle button. It's in the centre of the unit, just below the trackball. It might be more intuitive if it were placed above the trackball on the front of the unit.

All in all, this is a comfortable and robust looking unit. At £40, it could be considered over-priced, but it should last a lifetime.

AMIGA SUPERSTAR



Ultimate Blitz CD

■ **Price: £19.95** ■ **Supplier: Guildhall Leisure ✆ 01302 890000**

All things Blitz, on a single CD...

Blitz Basic is by no means a new language (even the latest version on the CD is two years old). It may have been around for a very long time, but it's arguably the best version of BASIC on the Amiga. Two of the key strengths of Blitz Basic are its interface to the Amiga OS libraries and the ability to use inline assembly statements. These make it suitable for a broad spectrum of programmers, as games like Skidmarks are testament.

What's on the CD?

So, the validity of having Blitz Basic on CD is not in question. But what is it that's likely to make you part with your cash and buy it? Maybe it's the price: £20 is pretty cheap for a complete package like this, and there's tons of bonus stuff like PD disks, disk magazines, support software and tutorials, all dedicated to Blitz Basic.

Maybe it's the lure of programming: BASIC is one the simplest languages to learn, and there's more than enough meat in the Blitz extensions to keep you learning and discovering for a very long time. Plus, if you make the migration to using the standard Amiga libraries then you'll learn a lot of the principles of Amiga programming, something that is useful no matter what language you use.

Or maybe it's the social aspects: like most good things on the Amiga, Blitz Basic has a large following. You can join user groups and share knowledge, and help promote the Amiga. There's plenty of contact information in the Blitz User International disk magazines, and loads of contributions from the Internet.

Ok, so the most likely people who are going to be interested in this CD are those wanting a cheap and simple way to start using their Amiga for more than just playing games or writing letters. These criteria are almost fulfilled, as the price is good and the language is easy. But, the final piece of the jigsaw isn't quite there.



▲ **The Blitz Basic editor.**

What's missing?

The CD lacks something that would have made it really great: integration. It appears (unfortunately) to be another one of those shovelware titles. A nice, cheap collection, but with nothing much holding all of the parts together.

Take the installation script, for example. It seems to do the bog-standard Blitz Basic installation, omitting little things like making use of the unarchived resources on the CD. This is even more disappointing because a lot of the provided (standard) examples require those resources.

And then there's the fact that some parts are out of sync with others, as some of the examples fail to compile because of a "duplicate type" error (which is often caused indirectly by some other file, making it a difficult problem to find and fix). This is quite understandable, but it means that aspects of the system must have been upgraded without testing the examples. Something which is likely to drive the intended audience (beginners) quite mad.

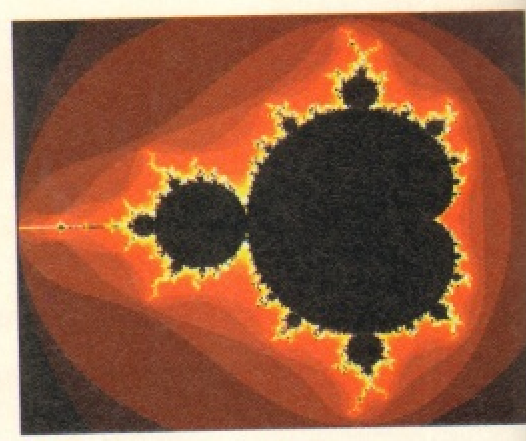
Another fairly minor annoyance is that Blitz Basic sources cannot be viewed with a standard text viewer nor created with a standard text editor, so you're forced to use the supplied editor. For some reason this editor does not follow the Amiga Style Guide but uses its own way of doing everything, from scroll bars to file requesters (although it is integrated with the compiler).

After many hours of browsing through the CD, a more OS-friendly replacement editor was found, but it would have been nice to have this as an up-front installation option.

Quibble free

If you can get over the disappointment of the installation and the lack of a guided tour of the contents then you'll probably get a lot out of this CD. It's a shame that the Blitz user group didn't spend some time to polish up these aspects and make this a brilliant CD, but as it stands there's a lot there for your money. Just add a little perseverance and enthusiasm and it'll do you just fine. ■

Jason Hulance



▲ **You can write mandelbrot renderers...**

BASIC

Beginners All-purpose Symbolic Instruction Code. A language which was designed to be suitable for beginners. It's also commonly used by even expert programmers to do quick and simple prototyping. There are many different versions of BASIC on the Amiga, dating back to one done for the original Amiga by a small company called Microsoft. In fact, BASIC is the language which formed the foundations of the Microsoft Corporation (which ought to explain their continued fixation with it!).

ULTIMATE BLITZ CD
Developer: ACT

System Requirements:
A600

Ease of use..........78%
The language is BASIC, so it's nice and simple. But the CD wastes its potential and omits help and guidance that would have made it great.

Performance..........85%
Blitz has the potential for really fast code, and it's built on top of a simple-to-use language.

Value for money..........89%
This is where this CD wins: great value.

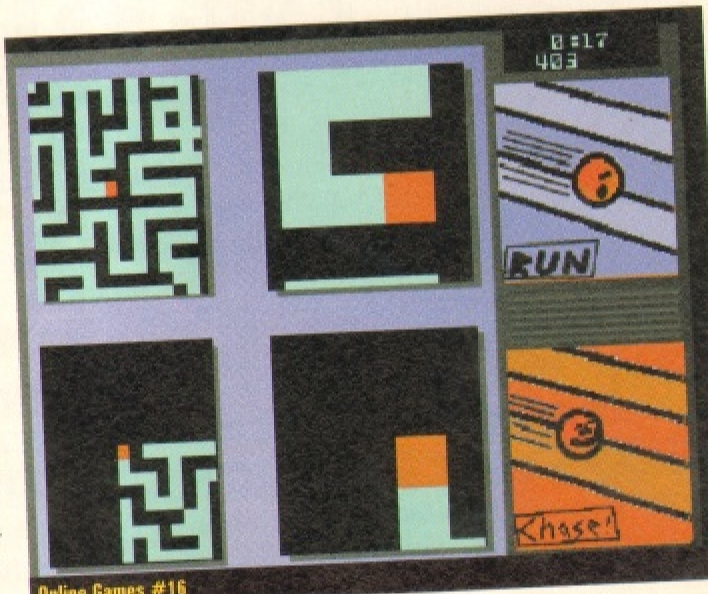
OVERALL
An excellent language and a good compilation of extras.

85%

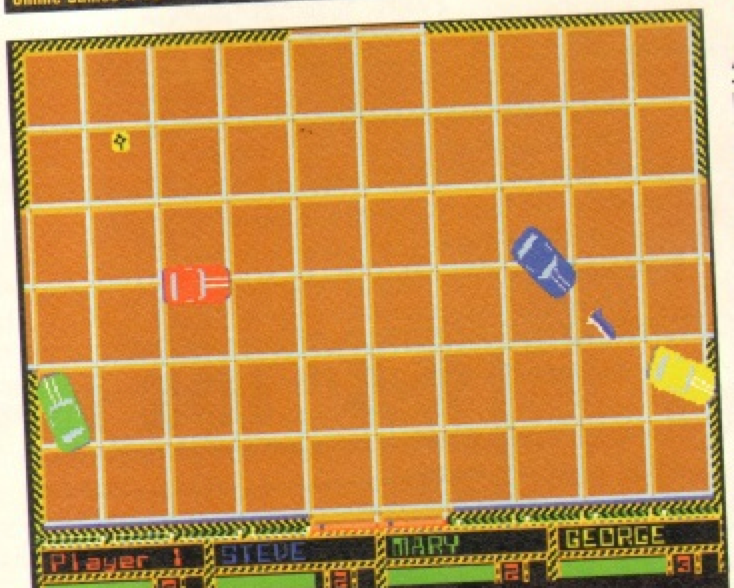
PD Scene

Steve Bye has finally got over the excitement of Christmas (bless him) and is just about calm enough to try out some new games on disk.

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear



Online Games #16



Clunk Click

Online Games #16

- Type:Games compilation
- Available from: OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX. Tel: 01704 834 335.
- Price: 75p

This 100% full disk contains no less than six games and surprisingly for this type of disk most of the programs on here are either quite playable or at least interesting. Dragon Pyramids is clone No.66740 in the Dragon Tiles series but has some good graphics to leer at and multiplayer modes.

Personally I could never understand how anyone could enjoy such a simple game where you just click on matching tiles, takes all sorts I suppose? Divumex is another clone, but this time of the 8-bit classic Xevious, and rather spiffing it is too.

Nice smooth scrolling with edible scenery and of course that naff gun sight on your ship makes for many a stroll down memory lane. Maze is a chase-your-mate type of maze game. Player 1 gets a 15 second head start then player two must try to catch him/her. Sounds like something my sister used to play at school.

TurboSmash is this months Arkenoid clone. As you would expect it's very playable and has a bat, a ball and lots of bricks in it. Wormout 2097 is one of those horrid worm games. You have to wiggle awkwardly around the screen avoid the edges and collect the goodies, not my idea of how to spend a weekend.

Nicely presented though. Rise Of The Rabbits is the most outstanding game on this disk as far as I'm concerned. It's a Dynablaster type game for 2-4 players. The idea is simple, the first player to collect four stars hidden on the screen is the winner.

There are seven other goodies to pick up as well such as extra lives, speed up etc. To move around the play area you have to move the blocks that are in your path by dropping bombs, and hopefully killing an opponent too if you are lucky or skilful.

A drinks cabinet, three friends and ROTR will do me for this weekend, ta very much.

★★★★☆

Turbo Invaders

- Type: Shoot-Em-Up
- Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26-2SH Tel: 0161 723 1638
- Price: £1 plus 75p P&P per order.

As the author of Turbo Invaders confesses, the graphics in this game are not up to much, but luckily TI is the type of game where you can get away with dodgy graphics because of the rather crafty gameplay.

TI is so easy you will find yourself on level 12 or better on your first attempt. This may be taking the 'ease them into the game' scenario a bit too far but it works. There are 22 levels to complete and you simply shoot at everything that moves.

The game is probably closer to Galaxians than Space Invaders as the enemy don't hang around too long. There are three types of enemy to splat and some power up's to collect to enhance your weapons.

TI is nothing special but it could provide a few hours of blasting mayhem for us old timers. Usage of grey matter is not required.

★★★☆☆

AmiPets

- Type: Cyberpet sim
- Available from: F1 Software. 1 Lower Mill Close, Goldthorpe, Rotherham. S63-9BY. Tel: 01709 888 127
- Price: 80p plus 75p P&P

Last month I reviewed a CyberPet game called Choki, it didn't go down too well I am afraid. I won't bore everyone explaining what CyberPets are again, I did that last month, anyway if you don't know what a CyberPet is now you probably never will.

This disk has not one, not two, but three (you lucky people) different 'pets' for you to play with, this includes a spider, Sheep and a Smiley face. But the big difference, and this is significant, is that these pets run as Workbench toys in their own little windows.

My main criticism of Choki last month was the whole pointlessness of it all, now we do have a point, a Workbench toy that can be fiddled with when you are say printing, downloading or just need a short distraction from your work.

The whole idea is still a bit crap as far as I am concerned but at least there is now some reason to it all. As I said there are three pets on this disk which is a little misleading really as they are all the same program but with different graphics.

You can create your own pets by changing the graphics if you wish and the documentation explains how to do it using a

paint program.

The icing on the cake I suppose is that you can save the current status of your pets. AmiPets is a big, big improvement over what I have seen so far but I am still unconvinced whether much fun can be squeezed out of your Amiga and a CyberPet sim.

★★☆☆☆

Clunk Click

Type: Racing game

Available from: PD Power 15 Lovetot Avenue, Aston. Sheffield. S26-2BQ
Tel: 01374 150972

Price: 50p +75p P&P

The idea behind Clunk Click is fairly straight forward; smash up your opponents cars either by firing missiles or crashing into them. You can play with 1-4 human players or with a combination of up to 7 computer controlled cars.



Amipets

The race track is an arena, in other words you just whiz around a static screen, there are four exits on the screen with a wrap-around effect for quick escapes should you feel the need.

During the game there are items to be picked up that will enhance your chances of success like missiles, cash, extra speed and extra energy. The normal way of playing the game is via a championship that you can set up, but there are also practice options.

Before each race you also get a chance to buy and sell items in the shop. So far so good. In theory the game sounds like it could be quite a lot of fun, in practice the game is okay.

The graphics let it down a little and for me the gameplay just doesn't offer enough to keep my interest. Playing against other human players does improve the fun-factor considerably though.

This is the type of game most will have a few plays with then keep it in a disk box to play later, but probably never will. I haven't taken the mickey out of Clunk Click too much because it was written by a 15 year old and he claims it to be his first releasable game. I would be quite proud of Clunk Click if it were my first game.

★★★☆☆

Snakeman

Type: Arcade/puzzle

Available from: OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX.
Tel: 01704 834 335.

Price: 75p

Snakeman is a direct copy of an old Commodore 64 game called Oil's Well. As far as I recall I have never played the original but if it was half as addictive as this version I really wish I had.

You control a snake's head with your joystick, when you move it around the maze collecting the 'pills' (a lá PacMan) it leaves a 'body' that musn't be touched by the roaming baddies. You can't pass over your own trail, but you can erase it by pressing fire to go into reverse gear. That's it, you gobble up the pills, eat the baddies and collect any bonuses that you can find all in a set time limit.

Bonuses on offer are extra lives, extra time, points and baddie slow-downs. The old KISS addage (keep it simple stupid) has been put to full use in this game and it works a treat. Classic addictive fun. The graphics are of course 8-bit style ie; basic and bland, but you really don't care once you get caught up in the game.



Although there are far too many unoriginal games around and we need to see some new ideas, this type of game is worth the disk space. I haven't had so much fun since Tottenham Hotspur got a new manager.

★★★★★

Waponez IV

Type: Shoot-Em-Up

Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26-2SH
Tel: 0161 723 1638

Price: £1 plus 75p P&P per order.

This demo version of Waponez IV only gives you two levels to play with, it's £5 to register for the full version and apparently you even get some documentation with it too!

Waponez IV is a shooter in the mould of that old classic '1942', the enemy waves are very similar and the puny weapons you start with are frustratingly... er, puny, as is usual in this type of game.

In fact I gave up trying to blow away the enemy and just dodged my way through a level, which is quite short, but I got my just deserts when I had to face the obligatory end of level monster, in this case a space ship with a penchant for crushing you every tenth shot.

After learning my lesson I played the game properly and eventually arrived at the end of the level with some decent fire-power and slayed the sucker. Okay, it was fun once I had learnt the general patterns of the alien craft and I guess that is what it's all about.

The vertical scrolling scenery judders along a bit (good old Amos) and the graphics are semi-prehistoric but passable. There is a lot to enjoy here if you are into retro-gaming and this one is a touch above the average Amos PD blaster.

★★★☆☆



Online Games #16

PD Utilities

Little Steve Bye has a wail of time rummaging his way through this month's pick of the PD crop.

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear

Comms Guide

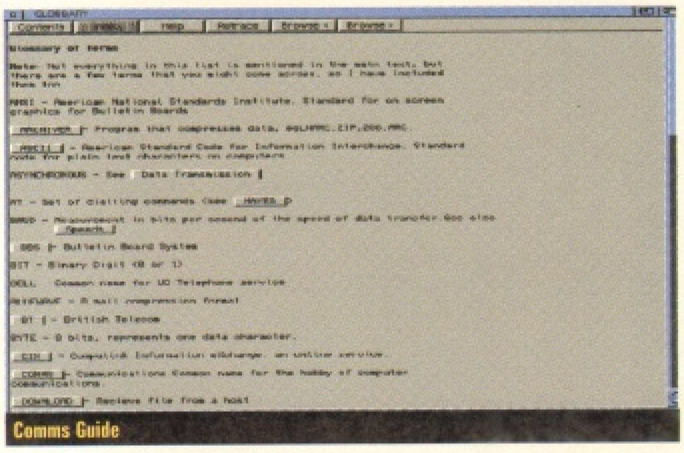
Type: Tutorial

Available from: OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX. Tel: 01704 834 335.

Price: 75p

This tutorial, produced in AmigaGuide format, explains how to set up hardware and software on your Amiga to connect to Bulletin Boards and the Internet. It goes into fairly high detail on subjects such as Fidonet, e-mail and FTP.

The only problem is that this guide was written in 1994 and hasn't been updated since. So don't expect Comms Guide to cover the more recent developments of the Internet. Although the general info is still valid and will be helpful to most newcomers they will learn some out of date information, which is exactly what this guide sets out to avoid.


Comms Guide

Any beginner will have to bare this in mind and not take any variables as gospel. Luckily most of these variables like phone costs, MODEM speeds, Internet addresses, contact numbers etc. Are not fatally serious so this guide is still valid as long as a touch of common sense is applied by the reader.

Total beginners could use this guide to connect their equipment and download more recent tutorials from Bulletin Boards or the Internet. An update to the guide could make it indispensable. ★★★☆☆

Phuture Trax Vol 1

Type: Music collection.

Available from: 17 Bit, 44 Cecil Street, Walkden, Manchester. M28-3LE Tel:0161 702 6737

Price: £1 plus 70p P&P

This is the first release from someone called 'SLC'. This 2 disk musical extravaganza contains 8 techno style music mods that can be played from a simple, but ugly, menu. You can boot the disks or use the supplied hard drive installer.

As you listen to the music you can read the obligatory scroll text and as is usual with this type of production, that's about it. The

Utility of the Month...

Utility of the Month

Hypra

Type: Hypertext application

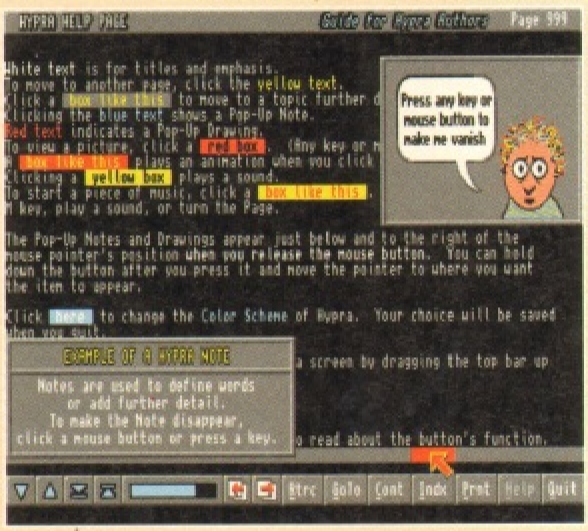
Available from: OnLine PD. 1, The Cloisters, Halsall Lane, Formby. Liverpool. L37-3PX. Tel: 01704 834 335.

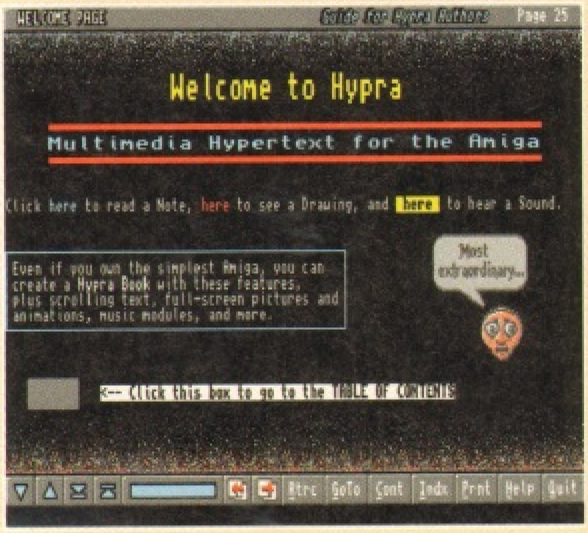
Price: 75p

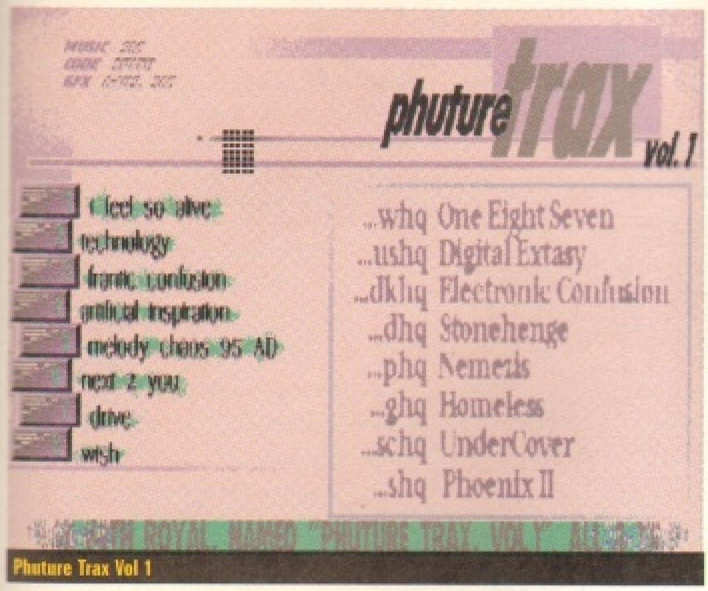
If you need to compile a disk magazine, E-book with your own sounds and pictures, Quiz games, user manuals or catalogues look no further because Hypra can do all the above and more. No programming is required at all to create your book or catalogue and Hypra will give your work a very nice look and feel.

To create your book all you need to do is assemble your text files, pictures and sounds and put them on a disk with the Hypra program. A bit of work is then required to link your pictures and sound with the text and to create links and buttons, colour schemes and the like but it is all explained clearly in the Hypra manual, which is of course displayed using Hypra. Once you have finished your book you can have all the files squashed by around 50%, which is useful. Hypra will unpack the files automatically of course. Few will have any problem learning to use Hypra if they read the superbly written documentation.

Basically if you can create simple AmigaGuide documents you will have no trouble at all with this. The main program has been written using Amos Pro and possibly Amos Pro's Interface language, the only drawback is the non-Workbench look but luckily Hypra looks good anyway. Hypra will work on all Amiga's 1.3 to 3.1, PAL, SECAM and NTSC are automatically catered for and your production is hard drive installable by simply dragging the Hypra drawer onto your drive. What more could the programmer do? A great piece of work and well produced.
★★★★★







Phuture Trax Vol 1

best tracks on here are probably 'I Feel So Alive' and 'Wish' but to be honest all the tracks are fairly samey. SLC is a talented musician though and I look forward to hearing more from this guy, if indeed SLC is a he! ★★★★☆

GrAC V2 Tutor

Type: Tutor

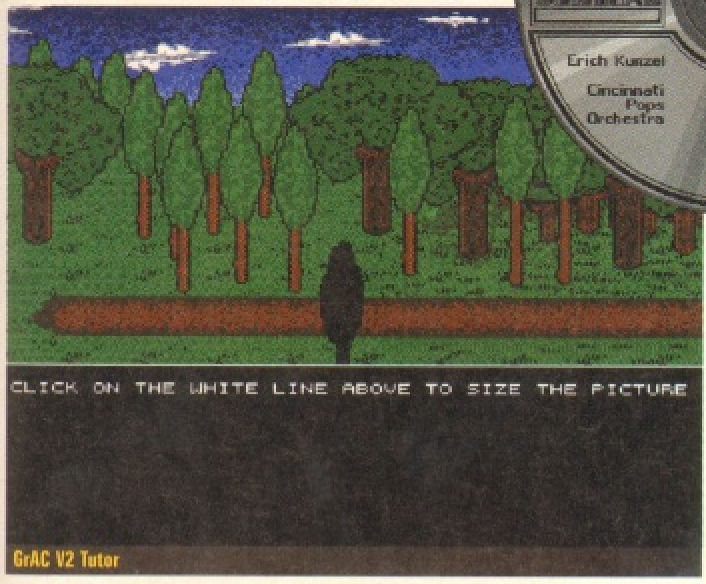
Available from: F1 Software. 1 Lower Mill Close, Goldthorpe, Rotherham. S63-9BY. Tel: 01709 888 127

Price: £4.99 plus 75p P&P

At the time of its release in 1994 GrAC (The Graphic Adventure Creator) was the first program of its kind on the Amiga. It gave non-programmers the chance to create very decent graphic adventure games in the style of Monkey Island.

But, GrAC has always suffered one major hindrance, the manual was, and still is, appalling. The GrAC program itself is well written and once you understand what you need to do is not too difficult to use, its certainly easier than programming a full game from scratch.

But, as I said, the manual turned what should've been simple step by step instructions into a mire of convoluted bits and bobs of information in what appeared to be a random order and even had some vital information missing too. This could explain why there have only been a handful of games released using GrAC. I reviewed a GrAC creation a few months back called World Of Magic by the way. GrAC is no longer supported by its original author so we can forget an official update to the program or manual. To atone for this step forward GrAC V2 Tutor, written by the near legendary Andy Gibson, all round good-bloke and responsible for many Amiga releases such as The Ultimate Quiz, AmosZine and DMC.



GrAC V2 Tutor

Andy has spent nearly a year deciphering the GrAC manual and has now decoded it into a digestible AmigaGuide document. The guide takes you through every step of game creation in plain English, including IFF screens as guides and examples, as well as all the game files required to follow the tutorial. Any GrAC owner that was frustrated with the original manual will welcome this guide with open arms.

It's a shame GrAC punters will have to lay out another fiver to get what should've been supplied with the original program, but having said that at least people will be able to use it now. GrAC plus this tutor will cost less than £12 which is still a bargain for a quality package.

By the way, Andy has made sure this guide can't be used without the original GrAC manual by referring to certain extracts from the original manual. Wise. ★★★★☆

Computer Plus

Type: Art collection

Available from: Roberta Smith DTP. 190, Falloden Way, Hampstead Garden Suburb, London. NW11 6JE. Tel:0181-455 1626

Price: 90p plus 50p p&p



This disk contains 36 pictures which are displayed by slideshow on booting the disk up. The subject matter is mainly computer related. The quality of the pictures range from old black and white clipart to old hand drawn 32 colour pictures, most of this stuff has been doing the PD rounds for years.

The collection is a mish-mash from different sources and I am sorry to say not one picture stood out to me as being of any use at all. Considering the plethora of cheap CD's full of art work, most of which hold better quality work than this, I can't see the point of this disk.

Sure, people searching for art work that do not own a CD-Rom player may be interested but I think most will be highly disappointed with the low quality of the pictures on this disk. ★☆☆☆☆

Best of Aminet

It just gets better and better. It's hard to know quite where to start (or indeed where to stop) this month, as the Aminet was absolutely flooded with decent uploads.

I always enjoy a decent demo, so I'll point you in the direction of demo/aga.AH97-INT.lha (437k) where you will find a compilation of three intro demos from the Amiganica Hungarica '97 scene party. Lights and Flares, the winner of the compo, has some nice illuminated plasma effects, but our vote went to the gorgeous plasma effects and great music of the far too short Lost Star.

Programmers should find a few things worthy of their attention this month, with dev/asm/ppcasmpk.lha (53k) a worthy starting place for those interested in getting PPC development underway before their PPC card turns up. If Blitz is more your thing, be sure to check out dev/mui/mui38dev-bb2.lha (197k) for everything the Blitz Basic programmer needs to use the MUI graphic user interface in their software.
On the games front those disappointed in Flyin' High should make their way over to game/patch/FlyinHighPatch.lha (80k) for a fix to improve handling, allow you to change the strength of your opponents and a few other tweaks. Those of you struggling with last months superb Foundation demo should try game/hint/FoundationHint.lha (19k) for some friendly advice.

Those looking to soup up their Workbenches have a couple of really nice uploads this month. One Amiga user, tired of the over bright MagicWB palette, has produced pix/back/GothbenchII.lha (417k), a bunch of gloomy backdrops with names like River of Angst - silly, yes, but there are some great backdrops there. Last but not least is util/wb/AmiLogo.lha (89k).

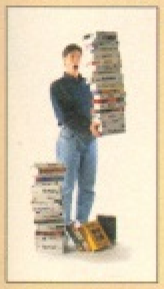
If you've ever wanted a spinning Amiga boing ball in the menu bar of your Workbench, this is the monkey for you, but alas it doesn't work with DOpus. Utterly useless, but it gets my vote for inclusion in Workbench 3.5.



Why Macintosh?

Performance:

All Macs have the latest PowerPC *RISC* processors (poor old Pentium systems are still *CISC* designs). Even entry level desktop Macs run at 180MHz, with 350MHz powerhouses at the top of the range (Mac PowerBook portables offer up to 240MHz).



Software choice:

Over 1,800 native software packages (written specially for PowerPC Processor Macs) have been shipped since Power Macintosh was launched in 1994 - plus there are thousands of industry standards which can also be used. Industry standard programs such as Microsoft Word and Excel, Pagestream, Word Perfect, FileMaker Pro, Quark Xpress, Photoshop and many others were developed for the Mac.



Creativity:

- Macintosh still dominates the creative world with an 80% market share in colour publishing.
- 65% of post-production video editing is on Macs.
- Macintosh is the most widely used system for the creation of Internet web pages.
- Most magazines (including the one you're reading right now) are created on Macintosh.

Multimedia:

- Apple is the World's No. 1 Multimedia PC vendor.
- All desktop Macs have a fast CD-ROM drive as standard (many portables have internal CDs too).
- In 1995, 42 of the top 50 selling CD-ROM titles worldwide were developed on the Macintosh.
- Many Macintoshes have built-in TV with teletext so TV clips can be recorded directly to disk as QuickTime movies.
- Many Macintoshes have built-in video in and out, for direct recording to VCRs.
- Some Macintoshes have internal digital video editing facilities as standard and many others can include this facility with an easy upgrade.

ISDN, the Internet & Communication:

- Macs are Internet/e-mail ready and many include modems with full send/receive fax and answer phone. Adding an ISDN connection is easy.
- Industry standard web browsers, Netscape Navigator and Microsoft Internet Explorer, were developed for the Mac meaning Access to Worldwide Web sites is easy.
- QuickTime, the Internet's standard format for video files, or QuickTime for Windows, are both Apple products. Of course QuickTime comes as standard with every Mac.

Connectivity & Expandability:

- Unlike other PCs, all Macs have networking built in as standard, so connecting systems together and adding shared printers etc. couldn't be easier.
- All Macintoshes have an external SCSI connector as standard. Adding external drives, ZIP/JAZ and other cartridge drives, scanners etc. really is Plug-and-Play.
- Low-cost digital cameras can be plugged into the Mac for instant real image input.



Education & Edutainment:

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- Because Macintosh is the preferred system within many educational establishments, high quality software is assured.



Recreation & Games:



- Top games like The Ultimate Doom, Myst, Rebel Assault II, Dark Forces, Descent, Afterlife, Lost Eden, Legend of Kyrandia, Full Throttle & The Dig have all been developed for Macs.

Output & Presentation:

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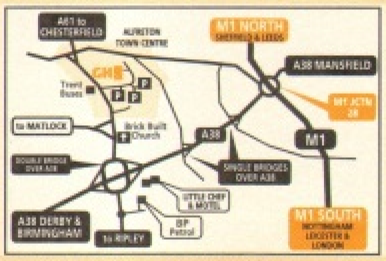
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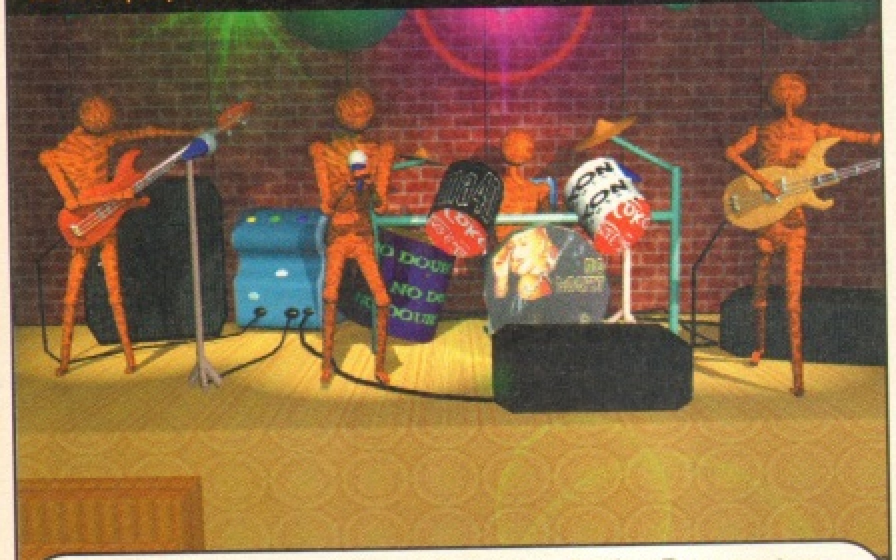
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The Woodys by Stefan Rast



From the Easternmost tip of Germany, Stefan Rast sent us this humourous render produced on his A1200/030 with 10Mb of RAM using Cinema 4D v3.1.

The Thinker by Girish Nath



Girish used Brilliance to draw the basic outline of the face, then use photogenices to apply a variety of image processing effects giving this its subtly textured finish.

Rincewind and Luggage by Martin Berg



A simple picture from Swedish reader Martin Berg, who is obviously a major Terry Pratchet fan. It was drawn on a "highly expanded Amiga 1200" using Photogenics1.2, ImageFX 1.6 and PersonalPaint6.4. The draughtsmanship rather leaves something to be desired, but the colour and composition of the montage is very evocative.

Snowman by Robert Caulfield



Robert, who is a multimedia technician for university college Warrington, generated this image in Lightwave 3.5 running on an A1200 with 18Mb of RAM and 50MHz 030 with FPU (Blizzard Mk IV). It is, as Robert says, hardly an original picture, but a nicely executed one. What's best, due to publication timing, we haven't had Christmas yet whilst you're now sick of it, so there.

RS Turbo by Jamie Shanks



An odd picture by Jamie Shanks. Apparently this was done in Dpaint, but there looks to have been some image processing effects used to generate the rough road, for instance.

Magic Tree by Stefan Rast



Stefan Rast returns with another Cinema 4D render. This one looks based on one of the tutorial renders, but I like it, he's used the lighting well.

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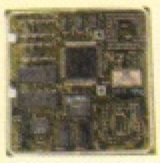
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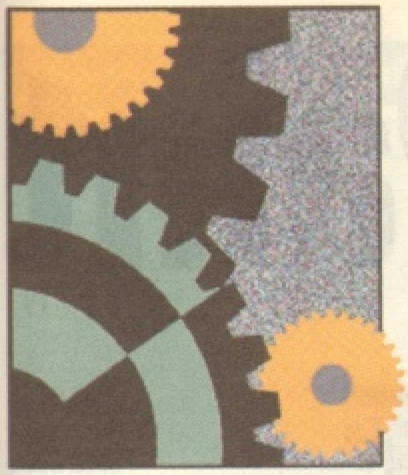
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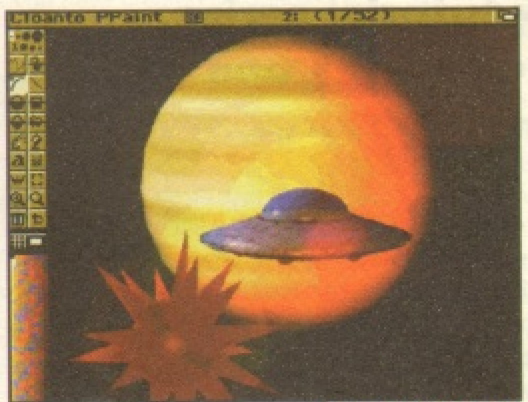
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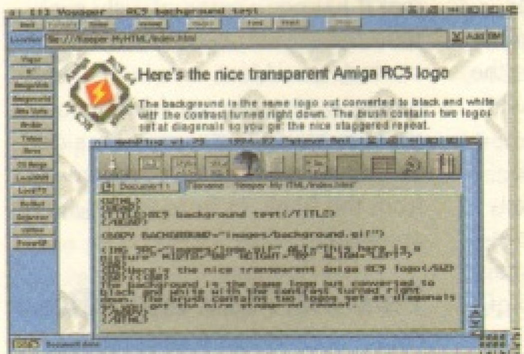
All your favourite tutorials are here once again, joined this month by PPaint 6.6 and a call for all Amiga user groups looking for new recruits (see page 95).



Personal Paint 6.6 p76



Desk Top Publishing p90



Wired World p86

Regulars

PART 1

Personal Paint

PPaint 6.6 has a few nice surprises hidden up its sleeve. In part one of our new tutorial series, John Kennedy examines one of its most powerful features...

As you'll know by know after trying our special coverdisk give-away, Personal Paint is the premier drawing and image processing program for the Amiga. It's compatible with almost everything – including high end graphics cards – and after many years of development, it provides dozens of tools which you simply won't find anywhere else.

One of its unique functions is the ability to make use of ARexx, and this can lead to some very impressive results.

What is ARexx?

ARexx is the Amiga's built in scripting and programming language. An ARexx program can be used for something routine like file maintenance (for example, renaming or moving files), but what makes it special – and the Amiga too – is the way ARexx can integrate itself with other programs.

Any program which is said to have an "ARexx port" makes available it's facilities to the ARexx programmer. Now an ARexx script can drive the program itself, instead of mouse movements and keyboard actions. ARexx can automate processes, or even link two or more programs together.

Personal Paint has a very extensive ARexx port, which makes a large number of commands available to ARexx programs. These commands appear in the ARexx program like new function calls, so they are very easy to implement.

Starting an ARexx program can be done from within Personal Paint, and this makes it easy to create your own "macro functions" which can be performed from within the program.

This makes it easy to process batch operations (such as converting a list of 100 images) or performing complicated actions with total accuracy: such as drawing text inside a circle.

Preparing for ARexx

Before you can execute an ARexx script, the utility which executes the ARexx program needs to be installed and running. There is every chance that this is already the case on your system, but if not you need to make sure that the RexxMast program is installed and that it is running. Most people include a line which says

run >nil: <nil: RexxMast

in their user-startup sequence so that it happens automatically every time the system boots up. Once started, RexxMast runs in the background waiting for an ARexx program to start. ARexx programs can be started using the "rx" command from the Shell, or from within an application.

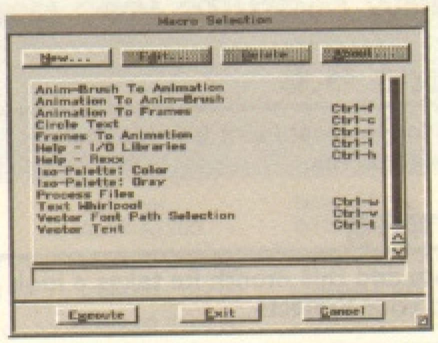
Personal Paint and ARexx

Personal Paint has a selection of previously written ARexx programs all ready and waiting for you to use them. These programs can be executed from within Personal Paint, so to get started, simply run PPaint in the usual way.

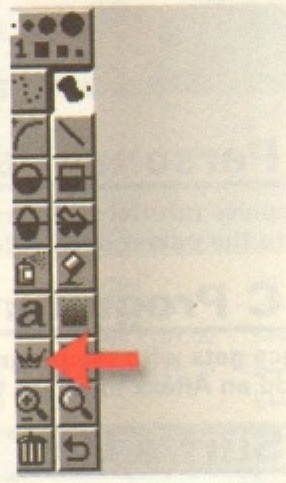
You'll notice on the toolbar an icon of a little crown. This is the ARexx execution button, and it means you can quickly use ARexx like any other Personal Paint tool. It works like this:

Left click: Run the currently selected ARexx script. If no script has been selected, then try bringing up the list.

Right click: Bring up the list of ARexx scripts and let the user pick one of them.



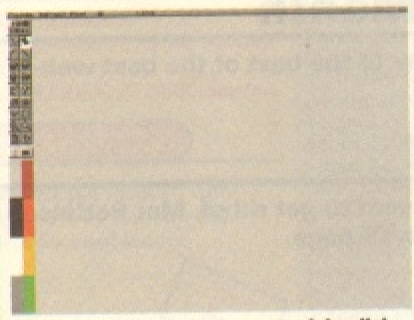
▲ The script selection tool opens when you right click on the ARexx toolbar icon.



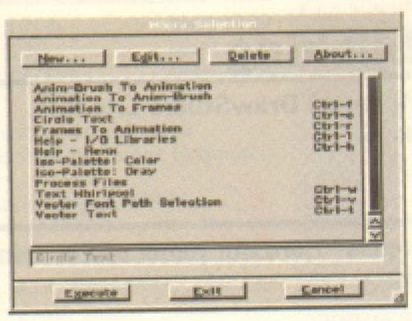
◀ The ARexx icon on the toolbar makes it quite easy to execute scripts from within Personal Paint.

Using the supplied scripts

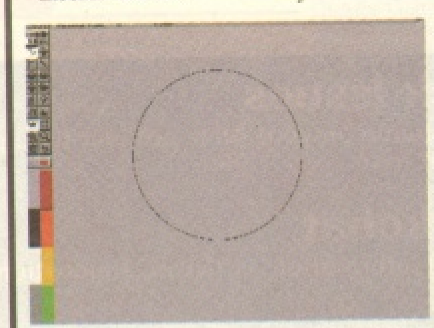
Let's look at one of the supplied scripts. You'll see how easy to use, and how much an integrated part of Personal Paint it really is. Experiment with different circle and font sizes for the best effect. You can use different levels of anti-aliasing, which blurs the text slightly and makes rotated letters look much better: although a graphics mode with several similar colours gives best results.



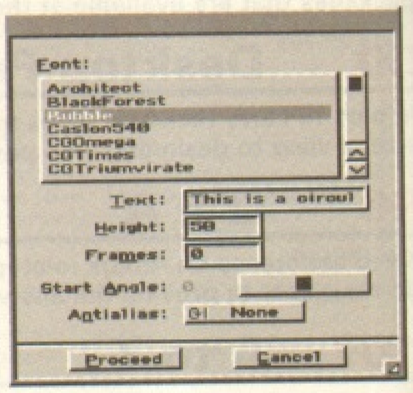
▲ Step 1. With a clear screen, right click on the ARexx icon in the toolbar.



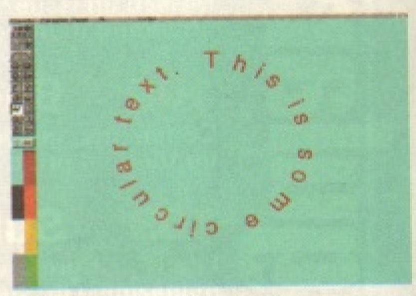
▲ Step2. When the list of scripts appears, select "Circle Text" and click on the "Execute" button.



▲ Step3. The script list disappears, and it looks as though nothing is happening. However, Personal Paint is waiting for you to draw a circle. Click in the centre of the screen with the left mouse button, and with the button still held down, drag out the outline.

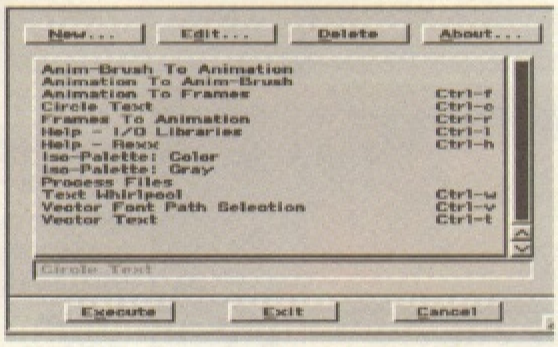


▲ Step 4. When you release the button, the Settings window for the Circle Text tool will appear. Now you can select the font, the size and the message you want to appear. We'll come back to the other features later.

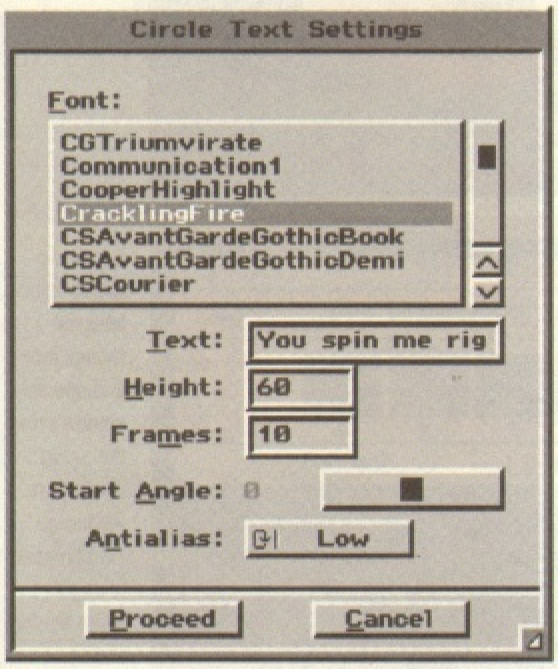


▲ Step 5. Once you've chosen the font and message, click on Proceed and then watch as the text appears on screen. Easy!

The Power of ARexx



▲ Step 1. Start again with a clear screen, and select the Circle Text ARexx script.



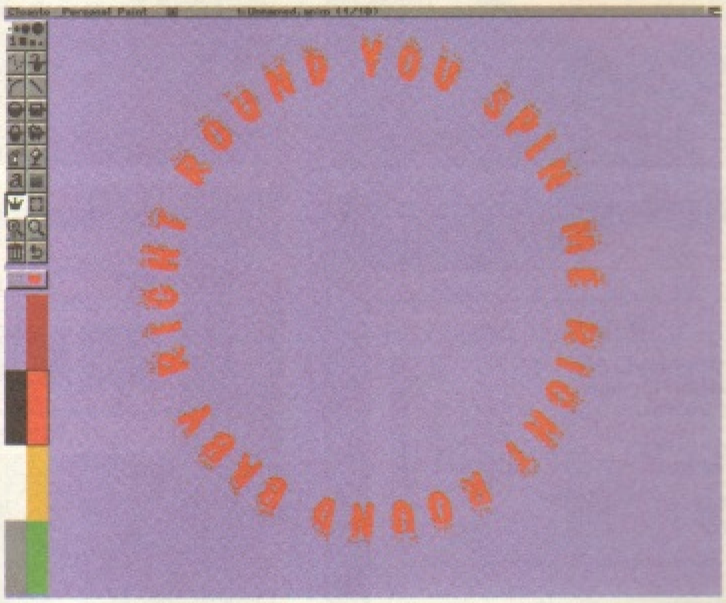
▲ Step 2. This time alter the Frames setting to about 10. Make sure the text you are using ends with a space.

Rotating text like that by hand would almost be impossible to do right, but ARexx has meant that we've performed the actions in a few seconds. However, there's still more which even this seemingly simple script can do.

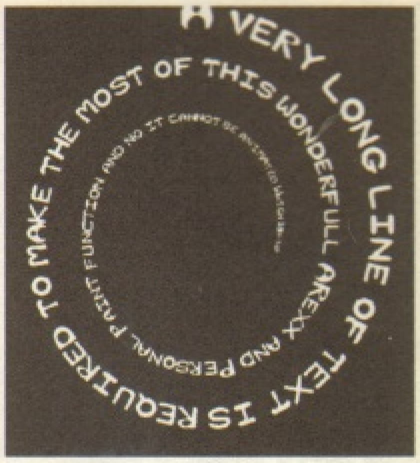
This is exactly the kind of effect which the combination of ARexx and Personal Paint make so easy. Trying to achieve the same effect with any other paint program would take hours or even days, so make the most of it.

The more frames you use, the smoother the spinning effect – try fifty for a really smart title to put on your Web page or for using when titling videos.

You can check all the frames you have created by opening up the Storyboard window.



▲ Finally, we can use Personal Paint to replay our new animation. Using different process filters can lead to some excellent images, so don't be afraid to experiment.



Process Files

This is a very, very powerful script. First you select a process from the standard list, then you select a directory. All the images in the directory have the process applied and are then re-saved.

This allows you to set up a batch process to deal with the frames from a rendering project for example. The frames can be created from an ANIM and converted back into the ANIM using the other scripts described here.

Text Whirlpool

This works in a similar way to the Circle Text script, but creates a spiral of text getting smaller and smaller as it twists into the screen. A nice effect, if you can find a use for it!

Vector Font Path Selection

Allows you to select the directory where any Compugraphic fonts are stored. These are the vector fonts which scale properly and without "jaggies". Any suitable fonts on your system will end with the ".otag" extension.

Vector Text

This script will render the vector text in a box which you can drag out. This makes it possible to get a perfect size and fit for any text you need rendered, with no "jaggies".

The supplied scripts

As you will have seen when selecting the Circle Script, Personal Paint comes with a collection of scripts to get you started. You can get individual help on each script by clicking on the "About" button in the script list, but here's a brief summary.

Anim-Brush to Animation

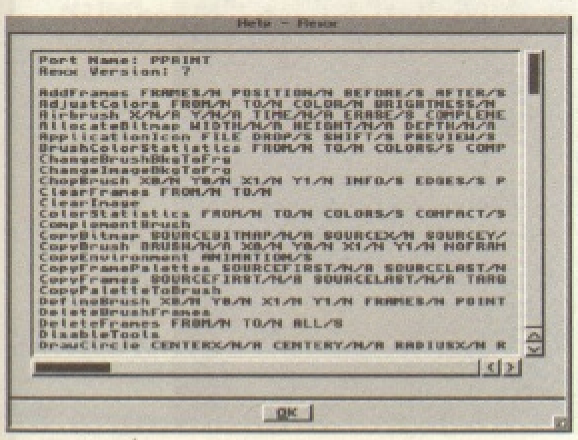
The anim-brush structure is similar to an ordinary brush, but can store several images. It's useful when dealing with only small portions of the screen. This script takes the current anim-brush, and creates a unique frame for each image.

Animation to Anim-Brush

This script processes the current animation, all frames, and snapshots the screen in each case to make a new anim-brush. This brush can then be saved and used in subsequent projects.

Animation to Frames

As you know, an animation is contained in a single file but consists of separate images. This script converts the ANIM file into a group of frames, such as frame000, frame001 and so on. It's useful for splitting up an animation for further processing (for example, blurring).



Frames to Animation

The opposite to the above script, this is a very powerful function. It takes a list of individual images and converts them into a single ANIM file. This is a great way to take frames created by rendering programs and convert them into a animation file for playback.

Help files

As the name suggestions, these scripts bring up pages of help. The ARexx help is particularly helpful, as it lists all the ARexx commands which are available. Essential when writing your own scripts.

Palette Scripts

These scripts adjust the current pen colours to create a graduated effect. Easier and quicker than the palette tool.

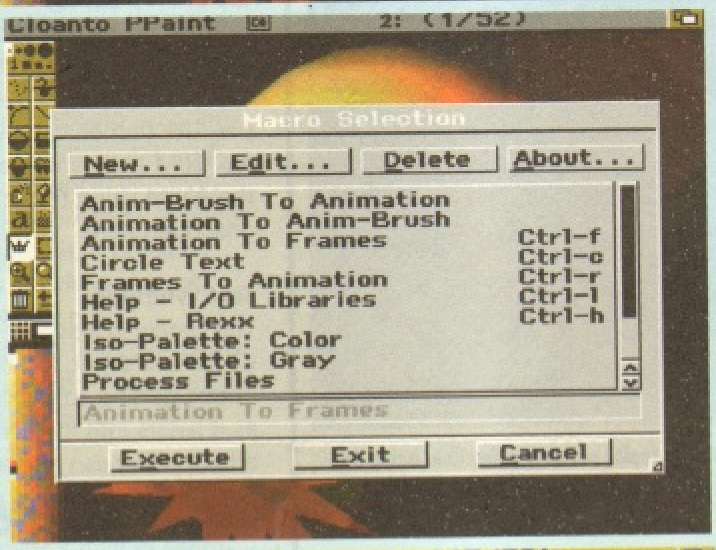


Processing an animation

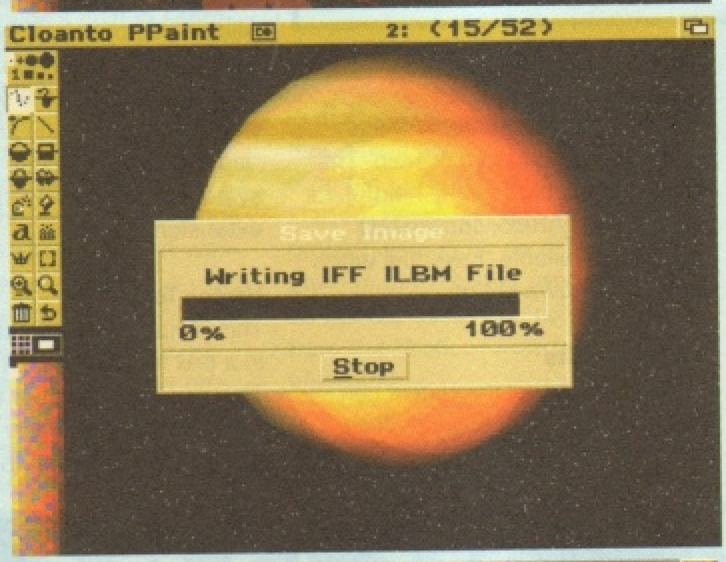
Here's how to apply a process effect to an entire animation. In this case, the fifty frame animation will be given an edge detection process. To make it easier to keep track of all the files, the ANIM file is placed into a new directory on the hard drive.



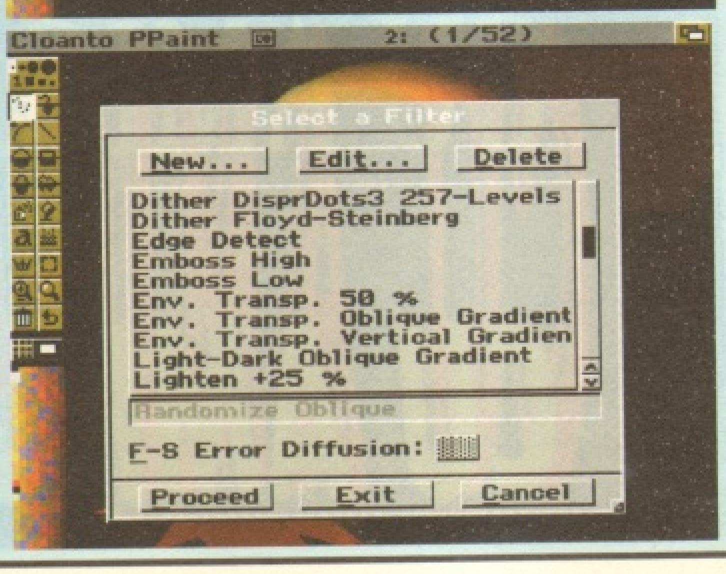
1 First load the animation into PPaint. This is a 256 colour animation created in Imagine (50 frames in a single ANIM file).



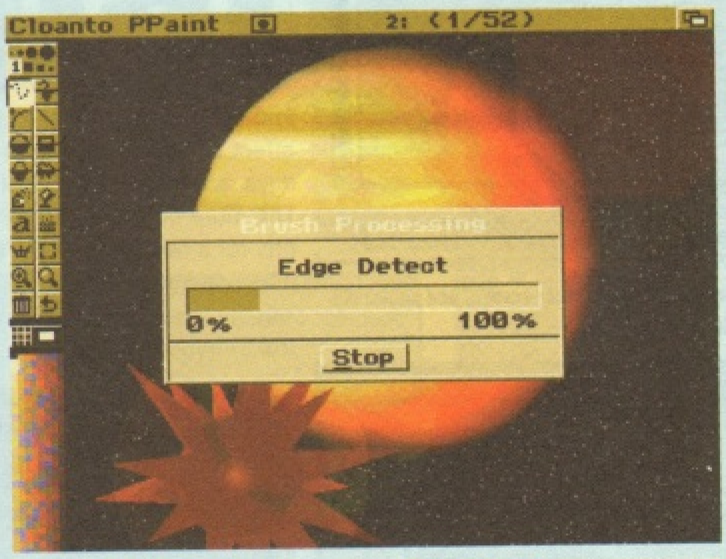
2 In order to process each frame of the animation, we need the individual images which make it up. We open up the ARexx script "Animation to Frames".



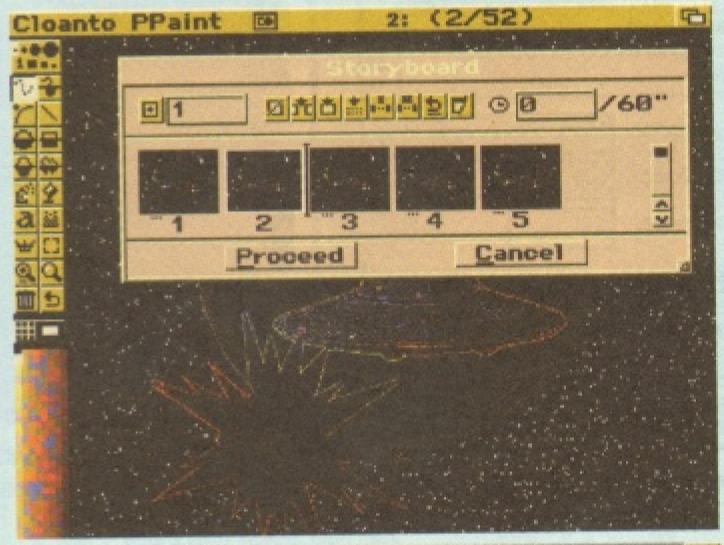
3 We then wait as the separate frames are written, one by one, to the hard drive. They will be given numbered names.



4 Next we use the script "Process Files", and supply the directory which contains all the newly created frames. Then we select the process we are going to apply.



5 Now the process filter is applied to each frame in turn. For really long animations, this might be an overnight job.



6 Now we can re-combine the frames into a single animation using the script "Frames to Animation". This creates a single ANIM file for saving.



7 You can see the individual frames which make up the animation by using the Storyboard window.



8 Finally, Personal Paint can replay our new animation. Different process filters can lead to some excellent images.

Amiga C Programming

PART 7

... ARexx, ARexx, a Kingdom for ARexx...

This month we're going to look at adding an ARexx interface to our program. This will enable the user to utilise the full power of ARexx to control the drawing (or whatever aspects of the program we make available through the interface).

To enable ARexx to communicate with our program, basically all that needs to be done is to create a public message port. We've already worked with ports, because this is the way Intuition communicates about user activity (through IDCMP).

The significant difference is that the message port we need to create is public. This means that other programs (in particular, the ARexx system) can see the port and send messages to it. In contrast, the port attached to a window is private, so only Intuition can send messages to it.

Once we have our port, all we then need to do is accept and understand the messages that arrive on it. This will involve making some small changes to the message handling code (in "idcmp.c"). The final topic of interest here is the interpretation of the messages from ARexx.

Libery Library

A C library of functions in a ".lib" file, much like the Amiga (shared) libraries we've met before. The difference is that the code for any functions used from a C library is added to your program in the final stages of compilation (ie; when linking), so each program that uses the function has its own copy. On the other hand, there is only ever one copy of code for functions in an Amiga (".library") library, and this is shared between all programs that want to use it.

AmigaLib (ie; the "amiga.lib" file) is the most commonly used C library that you'll actually come across. Intuition (ie; "intuition.library") is an example of an Amiga (shared) library.

Port Creation

First things first: we need to create a public message port. This can be done fairly easily using the "CreatePort()" function from the AmigaLib linker library. However, we need to make a public port and to achieve this we must give the port a name.

But we don't want to just blindly add a new named port: if a port with our name already exists then our program cannot just continue. In a more thorough program we might deal with this problem by trying a different succession of different names (by appending ".n", where n is a number), but for this example we'll just fail the whole program if we can't make a new port with the desired name.

A naive solution to this problem is shown in Example 1. There are two reasons why this code isn't ideal. The first is a problem that's caused by one of the Amiga's biggest strengths: multitasking.

Our program may be running at the same time as many other programs, and any one of those might want to create a port of the same name as our program. "FindPort()" merely returns the named port if it can be found at that point in time.

It does not reserve the name if it wasn't found, so another program could easily sneak in and use the name before our program gets to the "CreatePort()" call. What we need is a way in which to prevent this and make our creation 'atomic'.

If you're really alert you've probably just popped back after reading the description of 'atomic', nearby. So, you're probably expecting that we'll use a semaphore to make our creation code atomic. Unfortunately, this is one of those cases where we don't

Example 1

```
/* Make sure the named port doesn't already exist */
if(FindPort(portname) == NULL)
{
 /* Now try making the port */ if(arexxport =
CreatePort(portname, 0))
{
  /* Succeeded */
 }
}
```

Example 2

```
2int createARexxPort(char* portname)
{
 int success = FALSE;
char* error = NULL;
/* First, must turn off multi-tasking so we can
atomicly add our port */ Forbid();
/* We can only succeed if the named port doesn't
already exist */ if(FindPort(portname) == NULL)
{
  /* At last, make the port (priority 1 to enable fast
searching) */  if(arexxport = CreatePort(portname, 1))
    success = TRUE;
 else
  error = "Error: cannot create ARexx port\n";
}
else
 error = "Error: cannot create ARexx port
(the name already exists)\n";
/* We must now turn multi-tasking back on... */
Permit();
/* .now we can print any error and return the result */
if(error)
  printf(error);
return success;
}
```

Example 3

```
struct RexxMsg* getARexxMsg()
{
 return (struct RexxMsg*)GetMsg(arexxport);
}
```

Example 4

```
void replyARexxMsg(struct RexxMsg* msg, LONG rc, char*
result)
{
 /* Set up reply result values */
msg->rm_Result1 = rc;
msg->rm_Result2 = NULL;
/* If the reply expects a result string, create one */
if((msg->rm_Action & RXFF_RESULT) && rc == 0 && result
!= NULL)
  msg->rm_Result2 = (LONG)CreateArgstring(result,
strlen(result));
/* Now we can reply to the message
*/ ReplyMsg((struct Message*)msg);}
```

Example 5

```
void freeARexxPort()
{
 if(arexxport)
 {
  struct RexxMsg* msg;
  /* First, make the port private so we get no more
messages */
  RemPort(arexxport);
  /* Now clear out any outstanding messages... */
  /* (Passing 20 for rc indicates an error reply) */
  while(msg = getARexxMsg())
   replyARexxMsg(msg, 20, NULL);
  /*
 ...and now it's safe to delete the port */
  DeletePort(arexxport);
  arexxport = NULL;
  }
 }
```

have that luxury. Instead, we must use the alternative of turning off multi-tasking momentarily.

To do this we use the "Forbid()" and "Permit()" functions to bracket our critical code (see Example 2). This way, no other program can do anything in between the calls to "FindPort()" and "CreatePort()", let alone create a port.

Unfortunately, the use of "Forbid()" adds another complication: it's illegal to try to do I/O (ie; use any DOS library function) when in the "Forbid()" state.

This means that we can't print messages to the console using "printf()", since that actually involves file I/O. So, we remember any error string in the "error" variable and print this only after the "Permit()".

This is a very picky technical point, but one that even seasoned Amiga programmers can fall foul of, especially when doing debugging: adding "printf()" statements can help you debug your programs, but if you add one to a section of code between "Forbid()" and "Permit()" then you'll be causing much worse problems than you're trying to fix!

The second problem with Example 1 is fixed in Example 2, too. It's a fairly minor point, but the change is to make the new port be created at a priority of one rather than zero. This is because ordinary (non-public) ports are created at priority zero.

There's usually a lot of them and it's only the creating program that's interested in them. Our public port will be searched for by ARexx, so we should make it's job as easy as possible.

Using a priority of one means that ARexx will find our port before it even looks at all the priority zero ports.

ARexx Messages

The first example (in the directory "arexx0") defines our ARexx port functions in the file "arexx.c". ARexx requires that we give some special interpretation to the messages it sends, so to help with this we've defined the functions "getARexxMsg()" (see Example 3) and "replyARexxMsg()" (see Example 4).

The only thing we need to do with a received message is be honest about its real type: an ARexx message isn't a simple "struct Message", it's a "struct RexxMsg". Our "getARexxMsg()" performs this type conversion by using a cast on the result of "GetMsg()".

Replying to an ARexx message is much more complicated. There are two cases to consider: we understood the message and acted on it successfully, or we didn't.

Within the former case there's a further subtlety: ARexx may have requested a result string (which can be used to help the user know what the message did in your program). This result string is not obligatory, but strongly recommended.

So, the function "replyARexxMsg()" also takes a result code and a result string. These will form the "rm_Result1" and "rm_Result2" fields of the message being returned, with the caveat that the result string must only be supplied if the message requested it (via the "RXFF_RESULT" flag) and the program acted on the message suc-

Example 6

```
/* Process an ARexx message
*/static int doARexx(struct RexxMsg* msg)
{
 int going = TRUE;
 /* By default, our reply will indicate an error */
 LONG rc = 20;
 char* result = NULL;
 if(strcmp(msg->rm_Args[0], "QUIT") == 0)
 {
  going = FALSE;
  /* We recognised the command, so set rc to zero */
  rc = 0;  result = "Hello Painter is quitting";
 }
 replyARexxMsg(msg, rc, result);
 return going;
}
```



▲ Here's one I made earlier...

cessfully (ie; the return code is zero).

The last subtlety is that the result string must be supplied as an ARexx 'argstring', and so "CreateArgstring()" is used to convert it.

The remaining part of "arexx.c" is the function "freeARexxPort()", which deallocates the ARexx port we created. This must also ensure that any pending messages are replied to properly (ie; the port should be flushed using "replyARexxMsg()").

To remove the possibility that any more messages can arrive whilst you are doing this, the ARexx port is first removed from the system's list of public ports (using the "RemPort()" function). Once all the messages have been replied to, the port can safely be deallocated by using "DeletePort()".

Acting on Messages

The framework we've created is used in "main.c" (setting up and destroying the port) and "idcmp.c" (handling the messages). The handling code is pretty straight-forward: it's just another port to listen to. The interesting code is the "doARexx()" function (see Example 6).

An ARexx message we receive corresponds to an ARexx command, and this is stored in the first argument string in the message ("rm_Args[0]"). We can use the standard C function "strcmp()" to compare this against the commands we want to accept.

In the first example (in the "arexx0" directory), the only command we allow is "QUIT" (see Example 6).

If we get this message we reply with a return code of zero and a suitable return string, and then quit the program in the normal way (ie; stop the main message loop by setting "going" to "FALSE").

The second example (in the directory "arexx1") builds on this and allows a couple more commands ("PEN" and "DRAW").

Of most interest is the use made of the standard C function "sscanf()" to parse the more complicated command strings. "sscanf()" is an extremely powerful function, which we'll look at in the future.

For the time being, you need to boot up your "RexxMast", run the second example and then type "rx test.rexx" in Shell window (see Example 7 for a listing of the second example's "test.rexx"). Have fun! ■

Jason Hulance

Example 7

```
/* Test Arexx communications */
options results
address hellopainter
do i = 15 to 1 by -1
 pen i
 draw 40+i 40+i "Hi from ARexx!"
end
```

Atomic code

A piece of code is atomic if it is guaranteed to be executed in one lump, without any other programs interfering. In a multi-tasking environment it is critical that certain sections of code are atomic. A simple example is the creation of a new file: if two programs both want to create the same file then at most one of them should succeed (it would be a big problem if both of them succeeded!).

So, the code that decides that a file does not already exist and then makes a new file needs to be atomic, at least from the point of view of any program that wants to create files.

Atomicity is usually assured via a generic mechanism of 'semaphores', or by temporarily turning off multi-tasking. These days on the Amiga, the latter approach is frowned upon, although it's sometimes the only way to do things. If you can use a semaphore (or some other locking mechanism) then that is greatly preferable. (This is a big topic that we'll return to in the future.)

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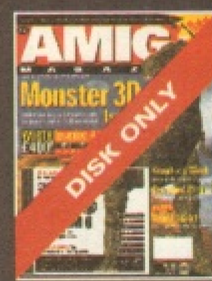
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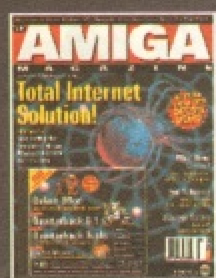
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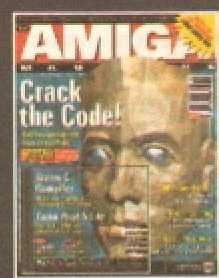
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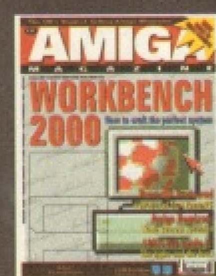
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Surf's Up!

That Net-bloke Neil Bothwick gives you the lowdown on another cluster of Internet sites which are well worth visiting...

Net God speaks

Usenet is approaching meltdown. The amount of traffic is far in excess of what the original concept expected, or even what it was a few years ago.

UK ISPs are regularly handling over 9-10GB of messages each day, with US ISPs handling up to 11GB. Ask anyone what the biggest problem is with Usenet and they will probably answer with one word, "Spam".

Spam, mass postings of irrelevant information, usually get rich quick scams or equally undesirable things, is certainly a burden on the system, but the reaction to it is even more so.

There are now numerous "cancelbots", computers that scan for offending messages and automatically send out cancel messages, so for each spam message there are many more cancel messages, to the extent that up to 25% of the total usenet messages in a day can be cancel messages.

Add to this the interminable threads on spam, the replies to spam messages, often quoting the whole of the original message and you can see why the reaction to spam is causing far more problems than the spam itself.

JavaScript... when?

There's not been much new Internet software released recently, but that doesn't mean that nothing is happening. The only browser release has been an update for Voyager (2.92v) yet the authors of all three browsers, are working on major updates. The first couple of months of 1998 should be very interesting, with JavaScript capable versions of the big three due.

JavaScript is more important for Amiga users than Java, once at least one Amiga browser can handle it we can expect JavaScript to appear in many Amiga users' home pages. You can expect a JavaScript tutorial as soon as we have a browser capable of handling it.

So, which browser will be first and, more importantly, which browser will do it best? One difficulty facing all of the browser programmers is that Microsoft and Netscape have decided it is a good idea to make their versions of JavaScript incompatible with each other, we'll just have to wait and see how the Amiga browsers deal with this.

Socks for all

Last month's Surf's Up reported the release of a beta of Miami 3, one of the new features is SOCKS support. Now a SOCKS client has been released for AmiTCP. The current version is on this month's CD, or available from: **ftp://ftp.aminet.org/pub/aminet/comm/tcp/sockproxy.lha**

Non-Wintel news

If you want to know what's happening in the wider computing world, you usually find the news is dominated by Intel/Microsoft announcements. Convergence International is an organisation dedicated to support usage and development of all non-Wintel platforms.

They state "We believe that if a time comes when one single platform is the only one in use the computer industry will suffer. Without competition there is stagnation, and no one platform can hope to be best suited to every application. While there are alternatives development is spurred on by competition, and people are free to choose the platform which best suits their needs."

Their web site at: **http://www.convergence.eu.org/** contains important news on developments on a wide range of non-Wintel platforms, including Acorn, Amiga, Apple, ARM, Be, Psion.

Golden Emerod demo released

IRC bots are another of those "necessary evils" brought about by those strange people who get their kicks from spoiling others fun. Although they can provide many useful functions to users, one of the main reasons for a installing channel bot is to prevent channel takeovers and other such antisocial behaviour.

Golden Emerod is such a program, and a demo version has recently been released. The latest version should be available from **http://www.wordbench.com/dfd/emerod.html**

Amiga RC5 team keeps making headlines

The Amiga Team RC5 effort is continuing well. They are now working on the attempt to crack a 64 bit key, and processed the first million blocks in only 35 days, the sixth team to do so.

Whether the key is cracked by an Amiga or not, the fact that the Amiga name appears in the top ten rankings can only be good publicity.

You don't need to be using only Amiga to use join the Amiga team, and the new client works with machines that aren't connected to the Internet.

So it's now feasible to join from a networked computer and work and take blocks of keys home on a floppy disk for processing on your Amiga. A PowerPC client is in testing, currently processing over 500,000 keys per second, that's five times the speed of a 68060/50, and you should be able to run the 68k program on the 68060 chip of a CyberPPC card at the same time. See **http://homepage.cistron.nl/~ttavoly/rc5/** for full details. ■

Neil Bothwick



Surf of the Month

The man Neil Bothwick takes some precious time out from compiling our CD to cruise the Worldwide Web, here's the results...

There's a lot of web sites that have been created by Amiga users, giving lie to the tale that you need a PC or Mac to do anything worthwhile on the WWW.

Two sites have been set up to highlight the impact of the Amiga in this area, and to show just what has been done with an Amiga, some software and that most important ingredient of web page creation, some imagination. Built with Amiga also appears in the WWW section of our cover CD-ROM, but the site has been recently updated.

Built with Amiga not only shows that high quality web sites can be produced with the Amiga, with links to a number of them, it contains details on the software to help you with this. It also emphasises the importance of ensuring that web pages work correctly on a wide variety of platforms.

The other, complimentary, site is Made on Amiga. This is more of a directory of Amiga-authored sites, complete with a search engine to find specific sites within its database.

It contains a large list of Amiga based sites, indexed by category, as well as links to newly added sites, and the almost obligatory "cool site" button. Both sites provide an insight into the quality of web pages that can be, and are, produced using Amigas only.

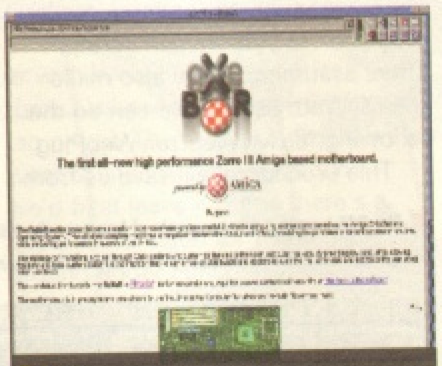
Do you want to upgrade your system, but can't afford new hardware? Or have you already upgraded and want to sell your old hardware/software? Maybe you want another Amiga or is your Christmas money simply burning a hole in your pocket?

In any case AmiBench is the place for you. AmiBench carries a large number of for sale and wanted ads for Amiga hardware and software. Whether you're buying or selling, advertising is free.

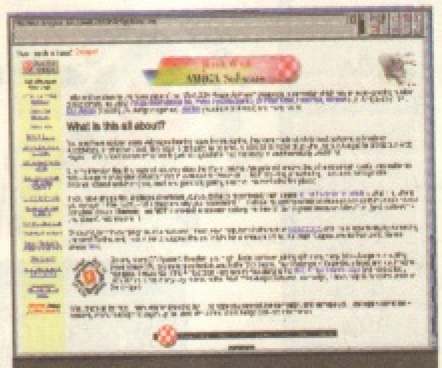
A number of Amiga users also have Psion palmtop computers. Even though the latest Series 5 has no software to network it with the Amiga (yet) it's still a very useful tool. The latest news on the Psion web site is the release of the Messaging Suite, a TCP/WWW/Email/Fax package. The



Amibench



Boxer



Built with Amiga

initial version could only be installed from a PC, but now there's a generic installer too and the best news is that it's free, which are easily modified to suit other providers.

Although browsing the web in 16 colour greyscale on a small 640x200 screen is hardly ideal, it's a lot more portable than any Amiga. The email software is most useful, allowing you to check your email anywhere there's a phone socket.

It provides full POP3 mail, and the networking software comes with pre-defined dialup scripts for several UK ISPs. While you're on the Psion site, why not drop them a mail asking when they will provide the information needed to port AmigaNCP to the S5? Series 5 owners should also take a look at Total S5! It's almost the Psion equivalent to the Amiga Web Directory.

The HTML Writers Guild provide resources for "World Wide Web page authors and Internet Publishing professionals". It sounds a bit grandiose, but the site is certainly worth having a look at. It contains links to a wide range of definitive WWW and HTML resources, as well as mailing lists and other services.

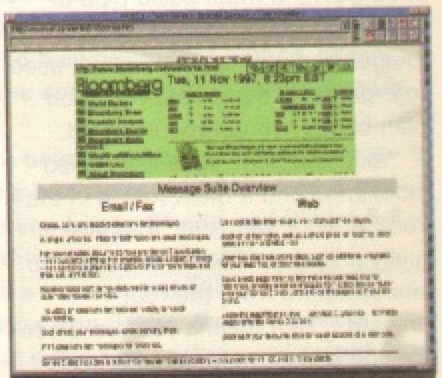
This has all been a bit serious so far... time for a bit of fun. As it says on the Dilbert Zone, "it's better than working" I'm not even going to attempt to describe what you'll find here, since I couldn't possibly do it justice. Just go to The Dilbert Zone and see for yourself. One word of warning, if you access the web at work, make sure your boss doesn't see what you're doing.

There were several new "Amigas" announced at the Cologne show. One of the most interesting looking is the Boxer. Their home page currently give prototype details, but may contain more concrete information by the time you read this. ■

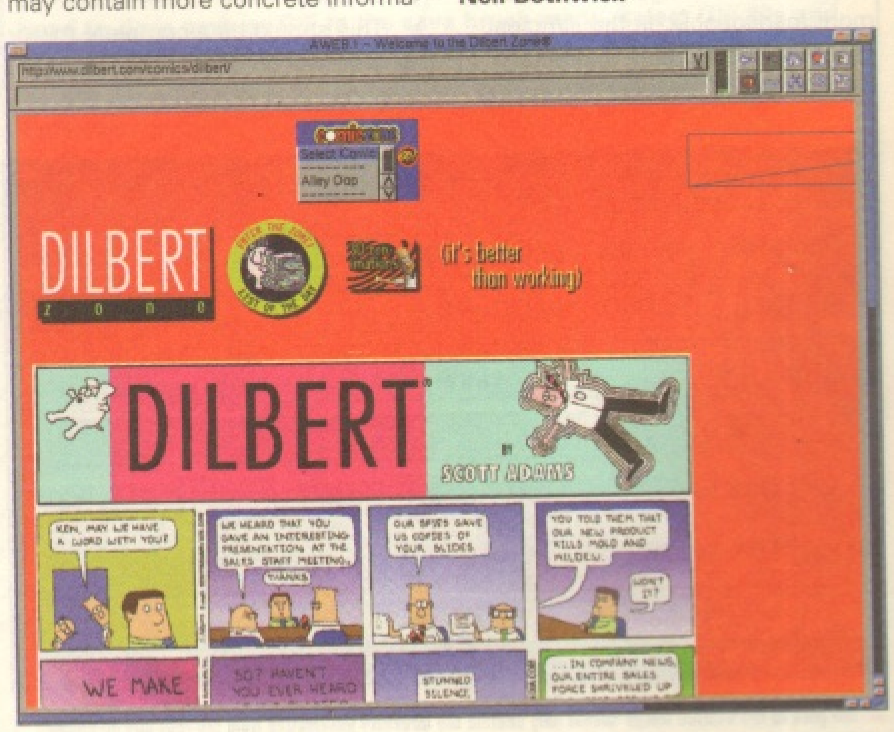
Neil Bothwick

URL's

http://www.amiga.u-net.com/BuiltWithAmiga/home.html
Built with Amiga
http://www.gonmad.demon.co.uk/moa/index.html
Made On Amiga
http://thunderstorms.org/AmiBench/index.html
AmiBench
http://www.psion.com
Psion
http://ady.net/psion
Total S5!
http://www.hwg.org/ HTML Writers Guild
http://www.dilbert.com/
The Dilbert Zone
http://www.cix.co.uk/~index/welcome.htm
Boxer

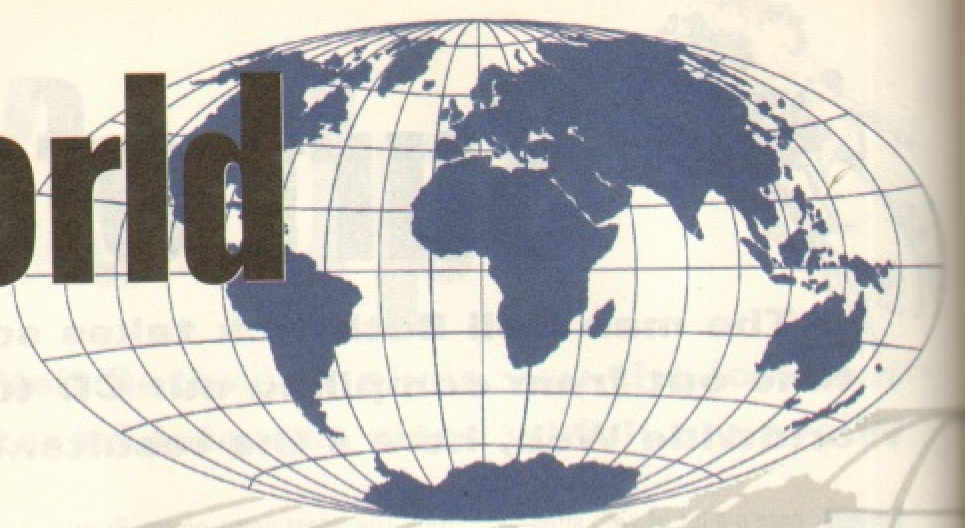


Total S5



▲ Fun and frolics In the Dilbert Zone

Wired World



Mat Bettinson continues the beginners guide to setting up a web page, this month delving further into Webplug's capabilities.

Last month we used WebPlug to lash up a basic web page and then we uploaded this to the FTP server of our Internet Service Provider. A common cause of confusion has been how to handle working with the FTP site and creating pages that work off your hard drive and also the Internet when uploaded. Here's the foolproof method for creating completely 'relative' pages that run perfectly wherever they're placed.

It's safe to say that as you proceed past the most basic type of web page, you'll want to include images and sub pages. Getting used to organising them neatly is good plan before we get too involved.

Your first page is usually called index.html and it must reside in the 'root' of your web site. You have virtually unlimited control of your web site structure from the root onwards. That means you can place files here and create directories.

Manageable web site

Creating directories is optional but it helps to make things neater and more manageable. In the simplest case, we could create a directory called 'images' and use this drawer to store all of the in-line images on our web pages. The root could still be used for the html files themselves. In order to create a directory, you log on to your FTP space on your ISP with an FTP client and simply use the create dir function.

While it's possible to link to images with a tag like: <IMG SRC=http://www.yoursite.co.uk/images/picture.gif>, this really isn't a good idea. Far better to use 100% relative links like: <IMG SRC=images/picture.gif> which really will do the same thing if they are found in a document at our site.

The upshot is that the same code will work perfectly of our hard drive for a browser as it will on the web site. We can even move provider later without changing a single page.

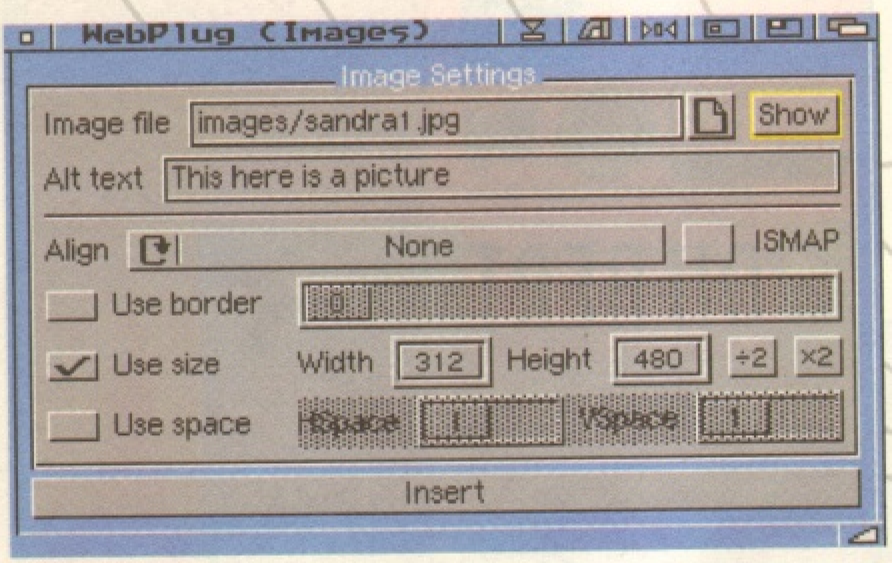
The trick is to use an assign for your web pages. For example "Assign MyWeb: HD1:MyHTML", which can be placed in your s:user-startup to make it permanent of course. Now remember to create the directories you need here such as 'images'.

This should be a complete mirror of what will be uploaded to the web site later. Just remember to use all lower case filenames, this avoids mistakes later as your Amiga isn't case sensitive but Internet web servers are.

A further trick is to launch WebPlug via the CLI and from the directory which we're using as the root for your web site. You can either copy the WebPlug program to somewhere that is in your AmigaDOS search path such as the C: directory, or you can add a path statement such as "path hd1:webplug add" to your s:user-startup. Then, assuming we've also make the MyWeb: assign, we can do the following; cd MyWeb:run WebPlug

This procedure will save us from having to delete the drive names from the paths that WebPlug will include every time you insert an image. A quick example; CD to MyWeb. Create a directory any way you like, you can just type "makedir images" in the CLI. Copy a GIF or a jpg image from somewhere into the images drawer. Run WebPlug as we've covered above. Select Functions/Header. Give a name to your Web page. Leave "Add <BODY>" checked and hit insert.

Click on the blank line and choose Functions/Images, click on the pop-up file requester gadget just right of the image file box. If all has gone according to plan, the file



▲ Our path to the desired image should only contain the directory information from the root and no Amiga drive details. This way the page will work anywhere.

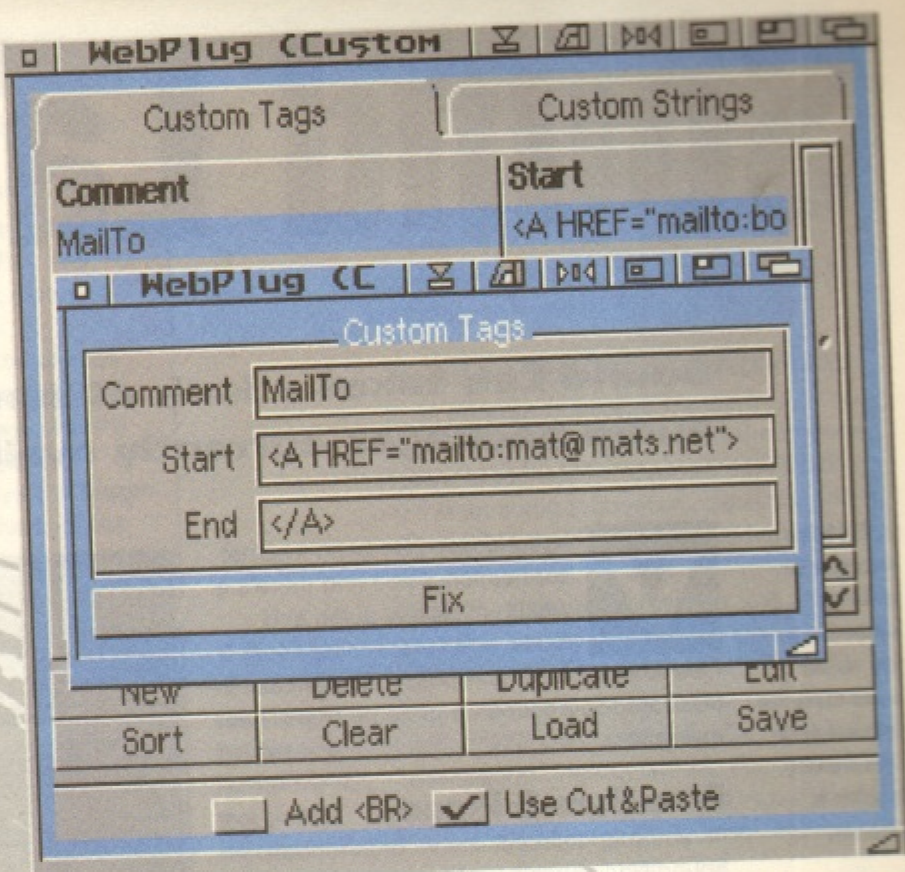
▼ The RC5 logo is a prize example of how to make a transparent GIF and how to use a logo for a background image. See http://www.cistron.nl/~ttavoly/rc5 for the real thing.



Mail me!

It's customary to include a link on your home page that visitors can click on to E-mail you. It's called a mail-to link and naturally enough, WebPlug handles this for us although not out of the box.

This is a good time to learn a new function of WebPlug called the Custom Tags feature. Select Functions/Custom Tags. Click new and you'll have three boxes to fill in. Fill the first one with "Mail me" and put this in the start box; "<A HREF=mailto:me@myaddress.co.uk>" where the E-mail address directly after mailto: (with no space) is your own address. Place "</A>" in the End box. Fix this and save your custom tags descriptions.



▲ **Adding a mailto custom tag for our own address means that we can quickly add a Webmaster mailto on the bottom of every page without typing it every time.**

requester will start from your MyWeb: directory and you should see a directory called images. Go into there and click on the picture. After pressing Insert, we see that WebPlug has added the proper relative path. Now let's do something.

Here's the trick, take any document you have, type your name at the bottom and highlight it in the editor. Now open the Custom Tags GUI and Drag the Mail Me item to the main window. Bang! Your name should now be surrounded by a Mailto: statement which will have the effect of launching a mail client to mail this address.

Double check it by saving your HTML and launching your browser to check it out as detailed last month. Click on your name which is underlined and whatever mail function your browser employs should fire up to send an E-mail to yourself.

Backgrounds

Very broadly speaking, there's three main 'looks' of web. If we want our page to have a distinct character of its own, one of these styles will need to be employed.

These are identified by the background colour of the pages. We can have dark text on a white background, light coloured text on a black background or even use a tiled picture which repeats to create a background texture. Again all of these is chosen from.

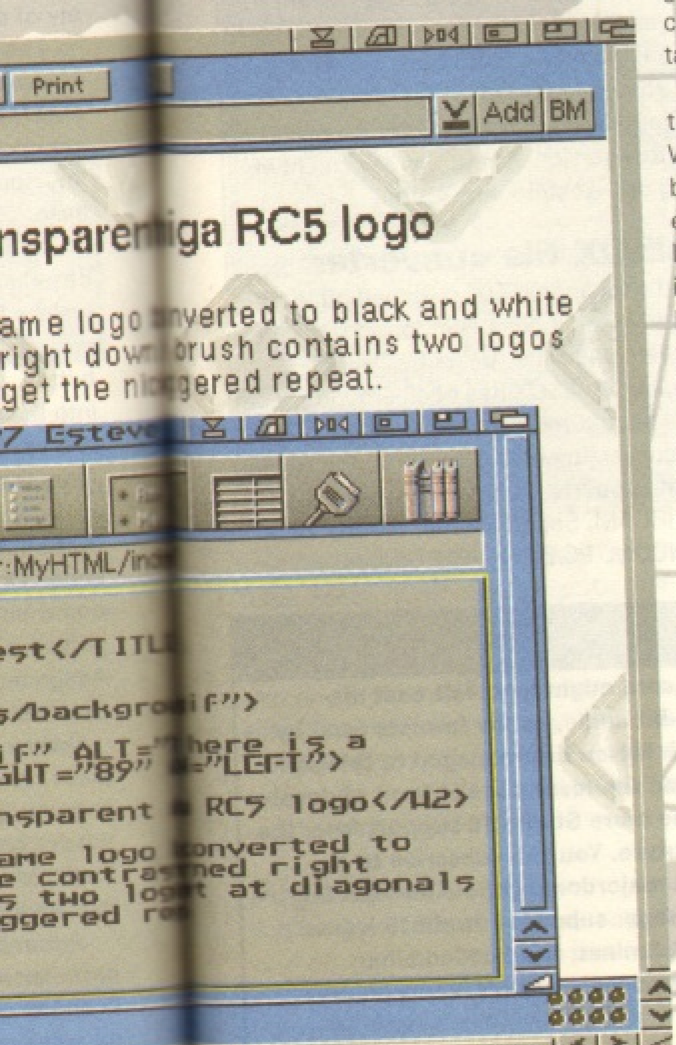
When you insert the HTML header with WebPlug, you'll notice there's a box to add the <BODY> tag or not. The reason is that if we want to modify the background, we'd best leave it off as there's a separate function for the background under Functions/Background cunningly. This will add a <BODY> tag with the required attributes.

To try out a backdrop, obtain a tiling backdrop image for use with Workbench. The kind that's a small brush that repeats to create a never-ending pattern. It'll probably be an IFF so convert it to a GIF and save it in your images drawer. In the Functions/Background GUI, click the pop-up gadget for the Back Images box and insert this image.

Insert it and load into your web browser, you should see the image in the background but it may make text hard to read. In order to get an effective background texture, it has to contrast with the foreground text so experiment with the text colour settings too. You'll probably find that using an image processor to bump down the brightness and contrast helps greatly.

Another neat effect is to use the Emboss function of an Image processor (this is in Ppaint too) and play with the contrast brightness so you get a white background with a gentle logo stamped in 3D relief. You may remember this from the first incarnation of CU Online. ■

Mat Bettinson



You're so transparent

You may be wondering how some web sites make images that have transparent sections where the background can be seen underneath. This only applies if we have a textured background, of course, otherwise it can be faked by using the same colour backdrop as the images and some sites do indeed do this.

However, to gain transparency we need to make a so-called transparent GIF. Only GIF 89a supports this and there are a few Amiga programs that will allow you to make them, Image Studio and PPaint 6.6 from last month's coverdisks being the obvious examples.

In PPaint the easiest way to make a transparent GIF is to obtain a brush that has the transparent qualities you desire. Exactly how is beyond the realms of this tutorial but if the real background colour is designated as the background pen and you pick up a brush, you should find that PPaint will have successfully made the brush transparent. You'll see this as the transparent bits won't obscure the background picture as you move the brush around on screen. Now all you need to do is save as GIF in the save brush menu, select GIF 89a and deselect the same image format. What you have is a bonafide transparent GIF which you can experiment with by loading into your browser.

One very important thing to look out for is that the edges may need to be aliased towards the colour backdrop you have to avoid nasty edges. The most common effect is a blend to white used for white backdrops, the bad news is that doing this is a little on the tricky side and to do it properly you'll need a proper image processing package such as Image FX. In this case you'd paint the backdrop the colour of your web page, load in your brush and paste the 'feather out' function enabled. Experiment.

Then drop the image with the auto function so it will grab only the pixels that have changed in the middle. The result should be a brush which has the edges aliases gently to white and it will look superb. You might like to try a cute X-Files glowing effect by first pasting the image in a matte green a few pixels to each side, then stamping the image in the centre. This works best on black of course.

There's endless graphical tricks to use on web sites and the Amiga's toolkit of superb graphics software should provide endless opportunity to be a creative and original webmaster. Enjoy!

mat@mats.net

Sound Lab

Shareware Round-up

Sound Lab takes a look at some of the best of the current crop of audio packages currently available from the shareware scene.

▶ **AHI helps overcome the problems involved in getting various sound cards and software packages working together in harmony.**

Via our cover CDs or an Internet connection, you'll find there's a wealth of quality audio and music software available for next to nothing. This month's Sound Lab is dedicated to a round-up of some of the best examples.

Free Bars & Pipes

As you might already know, Blue Ribbon SoundWorks was bought by Microsoft a few years ago. Shortly after, Microsoft made all of the Blue Ribbon Amiga music software freely downloadable from Compuserve. If you do not have access to Compuserve and want these programs, you will be pleased to know that you can now get these programs on the web at: http:// www.in2net.com/bws/ blue

Here you will find freely downloadable archives of Bars & Pipes Professional (sequencer), Patchmeister (generic patch librarian) and SuperJam (improvisational music generator). You can also download the following expansion kits for Bars & Pipes Professional: Creativity Tools, Performance Tools, Power Tools and Pro Tools.

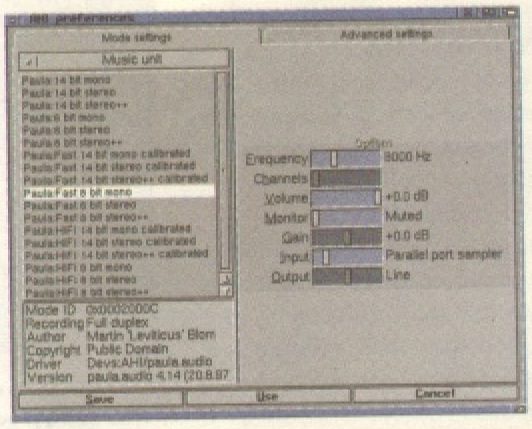
Be sure to read the Microsoft End User Licence Agreement before downloading any of this software. You will also find a previously commercial algorithmic composer that turns algebraic equations into music for Bars & Pipes.

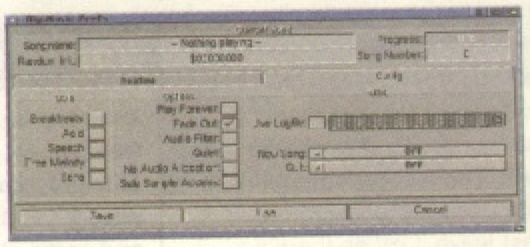
There are a number of mailing lists and web sites set up to support users of Blue Ribbon software. One of the more detailed web sites is called Modern Plumbing which includes support for Bars & Pipes, Patchmeister and SuperJam. Here you can find helpful tips and tricks, workarounds for bugs, new tools, accessories, drivers and styles: http://www.execulink.com/~jtech/b&p/ Or visit Richard Hagen's website for more information and links to other support sites: http://www.cs.uq.edu.au/~richard/music/bars-and-pipes/index.html

To subscribe to a mailing list for Bars & Pipes and related software, send an email to: jtech@execulink.com with the following command in the body of your email message: subscribe b&p <your email address>

Sound FX

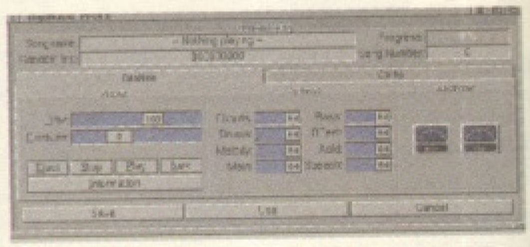
One of the best digital audio processors available for the Amiga is a shareware pro-





gram by Stefan Kost called Sound FX. Sound FX includes over 50 effects. The more common types such as amplifier, chorus, delay, echo, envelope, equalisation, filter, noise gate, pan, phaser, pitch shift, and reverb are all included along with some more unusual effects like vocoder, clap, crosstalk, fold, gamma, logic, morph and smear. One of the more interesting features is Sound FX's ability to generate surround sound encoding. There are also audio analysis functions (2D and 3D spectrum analysis, Fourier transformation) and even sound synthesis support.

Every function has extensive parameter and modulation options and the capability to save and load your own effect configurations. Through its fully developed ARexx port you can create automated processing scripts or even generate your own digital effects.



▲ **Let your Amiga compose and play its own tunes in realtime with the fascinating AlgoMusic.**

Sound FX includes loaders and savers for all common audio file formats including Sample Dump Standard (SDS), Studio 16 and Yamaha's TX-16W format. Audio playback can be done through the Amiga's built-in audio chip, Paula, with 8-bit and enhanced 14-bit modes or via AHI to a sound card.

Sound FX requires at least OS 3.0 and as with any program like this, the more CPU power and memory you have the faster and better it will work (some processes can take ages). Support for virtual memory is currently under development. You can get recent archives from Aminet (found in the mus/edit section). All the relevant archives are named 'sfx-' something or other.

Alternatively visit the author's website for the latest version at: http://www.imn.htwk-leipzig.de/~kost/SoundFX.html

AmiSOX file converter

SOund eXchange (SOX) is an audio file format converter. It has been ported from the UNIX version to the Amiga by David Champion. AmiSOX has been around for several years, but remains a favourite and efficient conversion utility. Currently, the Amiga version supports the following formats: RAW, IRCAM, Sound Blaster, SPARC .AU, Mac HCOM, PC/DOS .SOU, Sndtool,

Sunrize support

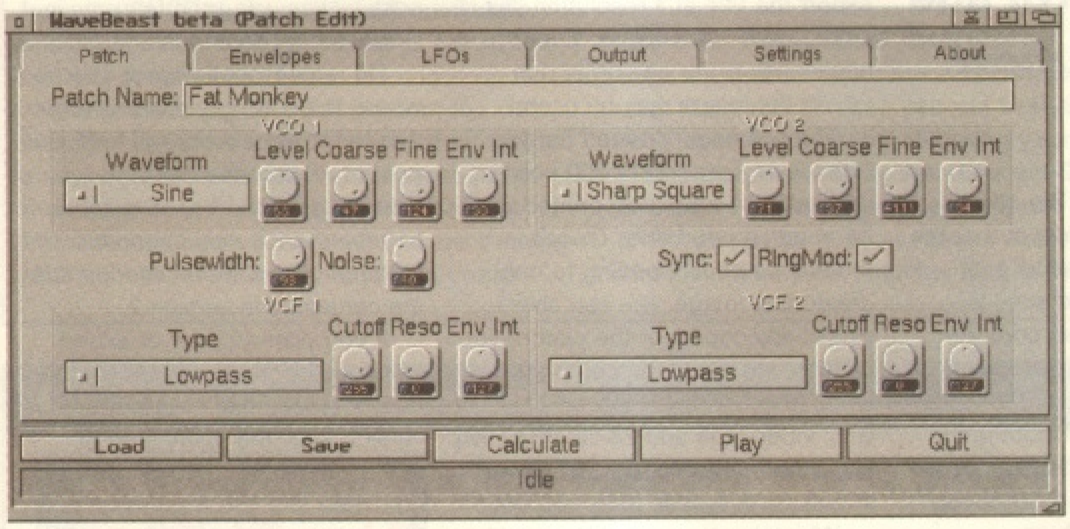
Anyone who uses a Sunrize AD516 or 1012 sound card might have felt a bit distanced from the recent developments in Amiga 16-bit audio, as the formats used by these systems are non-standard. However, Kenneth Nilsen has managed to fathom the mysteries of the Studio 16 format and publicised the results in the form of developer docs. With any luck this should mean we'll see more Studio 16 support from the established 16-bit sampling packages in the near future. You can subscribe to a Studio 16 Internet mailing list by sending email to: majordomo@thule.no with the following command in the body of your email message: subscribe studio16 <your email address> You can get the latest archive from Aminet: Studio16add.lha dev/misc or visit the Studio 16 and AD516/1012 support area:http://www.youngmonkey.ca/hands/files/Sunrize/index.html

WaveBeast virtual synth

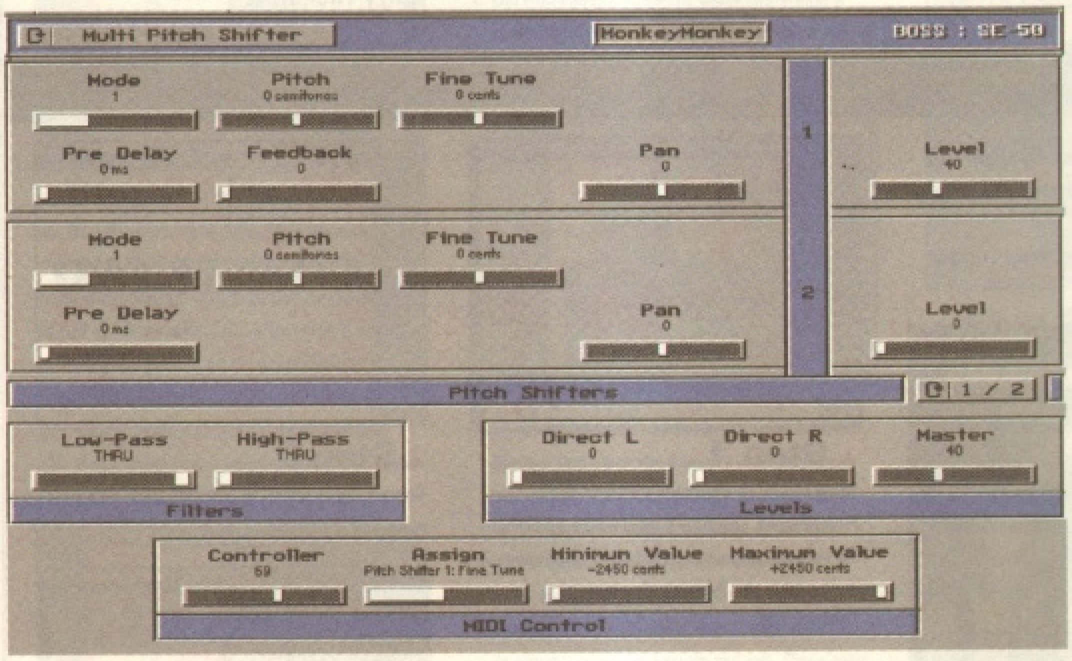
WaveBeast is a freeware software synthesiser developed by Marco Thrush and Jan Krutisch. It is currently in a beta stage but is publicly available.

Sound generation is controlled by two oscillators with standard waveforms (noise, pulse, sawtooth, sine, square and triangle), two 24dB four pole filters (low, high or bandpass), four multi-stage envelopes (VCA, Pitch, VCF1 and VCF2), five LFOs (pulse width, pitch, VCA, VCF1 and VCF2) and digital effects (delay, fuzz and reverb).

It also includes a 64 step sequencer with adjustable tempo, sequence transposition, and step settable slide and portamento parameters. It requires at least OS 3.0, MUI and AHI. An intensive calculation process is necessary to generate waveforms, so it doesn't operate in real-time. Lots of CPU power is good but not required. Because waveforms are generated in memory, the more memory you have the bigger your generated waveforms can be. You can get the latest version from the support site at: www.rzbd.fh-hamburg.de/~s1469005/amiga/wavebeast.html



◀ **WaveBeast offers a series of control panels that mimick a hardware synth, then goes off and renders wild sounds which can then be output as audio or samples.**



◀ **MIDI users wanting to exert more control over their gear are well catered for with MIDI SYStem EXplorer (MSE to its friends).**

Sounder, NeXT .SND, Windows RIFF/WAV, Turtle Beach .SMP, and Apple/SGI AIFF and 8SVX.

In addition to format conversion, it can also do some simple digital processing: echo, filtering (low, band and high pass), mix, resampling and vibrato. You can get the latest archive from Aminet: AmiSOX33.lha mus/edit 316K SOX

AlgoMusic

If you would rather leave the song writing to your Amiga, or perhaps you just need some inspiration or entertainment, then Thomas Schürger offers his giftware program AlgoMusic. Songs are 'randomly' composed based on a series of pre-programmed rules or algorithms. Generally, programs of this type generate music in a specific style. AlgoMusic is designed to create techno/house style music. Among its numerous parameters are a real-time mixer for setting the levels of the different tracks: acid, bass, back beat, chords, drums, melody, main and speech; and also real-time controls for tempo and tuning. You can also tell AlgoMusic whether or not to include acid, breakbeat, echo, free melody and speech parts in its compositions.

The program comes with many of its own samples, which it randomly chooses from when composing. You can, if you want, add your own samples. AlgoMusic requires at least OS 2.0 and MUI is also required if you want to use the preferences program. CLI parameters are also available if you do not have MUI installed. You can get the latest archive from Aminet: AlgoMusic2_3.lha mus/misc or visit the author's website for the latest version at:http://fsinfo.cs.unisb.de/~schuerge /AlgoMusic/

Audio Hardware Interface

In an attempt to bring a standard to Amiga audio, Martin Blom developed the freeware software (donations appreciated) called AHI. AHI is an audio subsystem, designed to be expandable, hardware-independent, and system compatible. It allows applications to share the audio resources, so that several programs can process sound simultaneously.

AHI currently supports the following sound hardware: Aura, Clarity, Concierto, Delfina DSP, Delfina Lite, DraCo Motion, Maestro Pro, Melody MPEG, Paula (Amiga built-in), Prelude, Toccata and Wavetools. You can get the latest archives from Aminet:

ahidev.lha dev/misc 339K
ahiman.lha docs/misc 257K
ahiusr.lha mus/misc 287K

or visit the author's website for the latest version at:
www.lysator.liu.se/(all)/~lcs/ahi. html

MIDI SYStem EXplorer

We finish off with my own shareware offering to the Amiga MIDI world: MIDI SYStem EXplorer. MSE has been designed to control all types of MIDI data through a programmable graphic user interface or by external software control. MSE can be used as a simple MIDI Controller or a complex patch editing system, allowing the user to enter MIDI information from manuals to control almost anything. Possible applications include: MIDI volume/pan mixer (with automated fading), sound editor and patch librarian. With the definition language you can design the entire user interface to meet your needs. Screen mode/size (Amiga/CyberGFX/etc.), window size and position, fonts, borders, colors, gadget placement etc can all be customised. You can also define the character set, MIDI port and much more.

MSE has direct support for the BlueRibbon.library (B&P, TriplePlayPlus), CAMD.library (DeluxeMusic) and MIDI.library (PD) allowing simultaneous use with other programs that also use these libraries. You can get the latest archive from Aminet: MSE.lha mus/midi 191K or visit the MIDI SYStem EXplorer support area:http://www. youngmonkey.ca/hands/files/MSE/index.html ■

Dhomas Trenn

On the CD

You can find all the freely distributable software mentioned here on this month's CD in the CUCD/Magazine/SoundLab drawer, along with over 600Mb of other great software too.

Desktop Publishing

Professional Page 4.1

PART 10

Larry Hickmott is here again with some more tips and hints for using ProPage 4.1. This time with a view to designing Web pages.

The main reason I use DrawStudio is for creating titles for desktop publishing work I undertake but the good news for every DrawStudio user is that the principle behind creating titles for DTP can be applied to making titles for video, web graphics and lots more.

Lets say you want to create an image that you need to use a number of different ways. The advantage in using DrawStudio is that the same image can be used for all your needs. If a printed copy is what you want, you can print the image from DrawStudio, which is especially effective if you have a decent colour printer, TurboPrint 5 and version 2 of DrawStudio.

Anyone who has the CD cover from the book I publish on DrawStudio will no doubt give testimony to that.

If however, you also need a bitmap copy of the image, you can export the title at a resolution suitable for your WEB page, video application or for any other use where the image may be useful.

The example I created for this tutorial was exported 1200 pixels wide and on a desktop printer on A4 paper, printed fine. There's more. As well as needing to only create one image, you can also export any copies of the picture you need in various graphic formats suitable for WEB pages (JPEG & GIF), video (256 and 24-bit IFF-ILBM) and other platforms (BMP, TIF and so on).

Which leads me to this month's tutorial. The image is based on an idea I saw in a magazine advert and contains a number of things which I will explain so you see some of the possibilities using the features in DrawStudio Lite and DrawStudio V2.

Do remember however, that where there are transparent objects that the transparency will be lost if printed or exported from DrawStudio Lite. This is because transparency is only supported by 24-bit print and export modes that are contained in version 2.

If you want to print or export images with transparency intact then you will need to upgrade to version 2 for the paltry sum of £29.95 including postage. Call me on 01908 370 230 for details. ■

Larry Hickmott

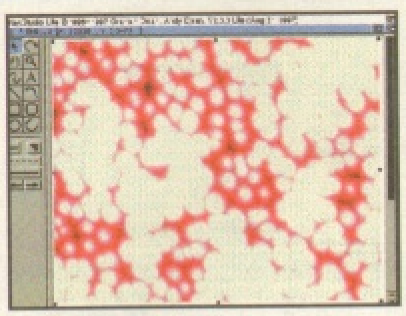
Looking Good

Take a look at the example picture which is the basis for this tutorial and make a note of the elements. The overall theme for many of the elements is a piece of text with a blurred shadow of some sort which lies over the top of a bitmap image.

Lets take a look at this piece by piece.

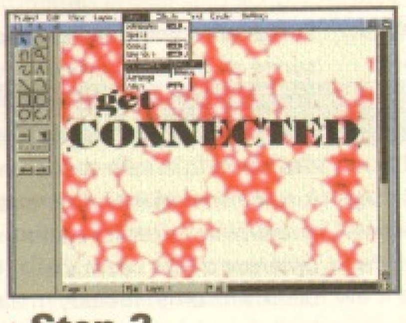


▲ Here is the result of the tutorial. A picture created in DrawStudio Lite but exported from version 2 so you can see it on the page in this tutorial.



▲ Step 1

Using the Place command which is on the Project menu, import a bitmap image like this. For those that have DrawStudio V2, this image is on the CD in the Textures directory (TXTR02.JPG).



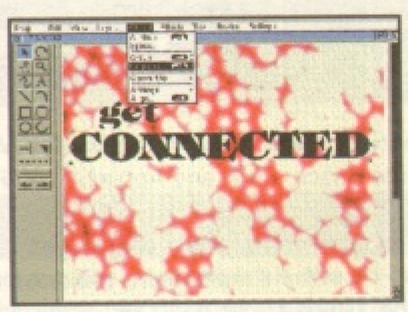
▲ Step 2

Using the Text tool, type some text over the bitmap image. Use the Font item on the Text menu to change the text to a style you want for your image. Do this now because you won't be able to do it later.



▲ Step 3

Convert "Connected" to a Bezier curve using the command in the Object menu.



▲ Step 4

Choose Ungroup from the Object menu. Then delete the letter O. To continue, click once on letter C, hold down shift and click on all the letters in the word "CONNECTED".

With all the letters selected, choose Make Compound Object from the Bezier menu. This allows you to apply the gradient to all the letters as one object.

Problem Solver

I have used DrawStudio for two years with no problems. Mainly because the 1200's I use are fairly standard in terms of what software is running on Workbench. MUI is the unregistered (but licensed) version we distribute with the program, I've no patches in my User-startup and regularly re-install Workbench to keep it fresh and uncorrupted. Thank god it's much easier than re-installing Windows 95! Anway, here are some tips for you.

Magic User Interface

First up MUI. In most cases, the people ringing me have been those that have a registered version of MUI 3.8 or are using MUI from the CUCD that contained DrawStudio Lite. Those that have MUI from us haven't had any problems.

If you are using MUI 3.8, rename the current MUI directory to MUI3-8 and then create a new drawer called MUI in the same partition. Now install MUI again and leave the MUI settings alone for now. If you are running MUI from the CUCD, just install MUI onto your hard drive. The installer will make the drawer and add any assigns.

Try running DrawStudio now. If you still have problems, make sure the MUI Window refresh attribute is set to Smart and not Simple. If the program still has problems when you import bitmaps for example, this is a MUI problem.

In my experience of talking to those who've had problems, most were caused by MUI. Someone couldn't get DrawStudio to function but after changing to a standard version to get IBrowse to work, they also found DrawStudio worked. If none of the above works, see Last Resort.

NTSC Problem Solver

Here is a quick one for our American cousins over the water. If when you run DrawStudio it can't open a screen, try changing your Workbench to a PAL screen (Use not Save) and then run DrawStudio and choose an NTSC screen for it. Now reboot your Amiga and all will be well. Another trick is to rename the "DrawStudio Lite.prefs" file and see if that helps in running the program.

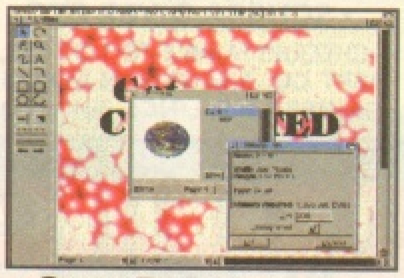
FPU?

If you have an FPU and have problems with the DrawStudio Lite FPU version, there is little difference between it and the non-FPU version. I've used both and not visually noticed any difference. It's also come to my attention that this FPU problem was non-existent in the V2 upgrade.

Last resort

A useful tip: Backup your current Workbench to a drawer (such as WB_Backup) on another partition, format (use Quick option if you're nervous) your Workbench partition and then re-install Workbench using the set of disks that came with your Amiga. I spoke to someone recently who also found it handy because even after re-installing MUI, the problem he had was still present. A fresh Workbench and installing MUI from the disk that comes with DrawStudio and all was well again.

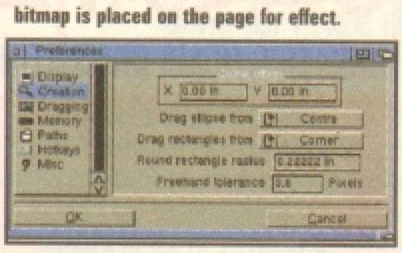
Looking Good continued...



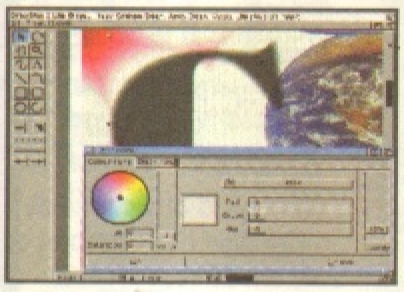
▲ **Step 5** A bitmap is imported using the View/Bitmaps menu item. This picture replaces the '0' deleted in step 4. The bitmap has a white background, then transparency is turned on so the white bits aren't visible when you place the picture on the page. Note this image was 24-bit where the colour white (255, 255, 255) is made transparent by DrawStudio Lite. If the image was a palette based one, then make sure white is colour 0 in the palette.



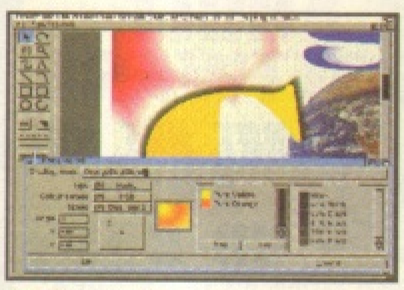
▲ **Step 6** A second background bitmap is placed on the page for effect.



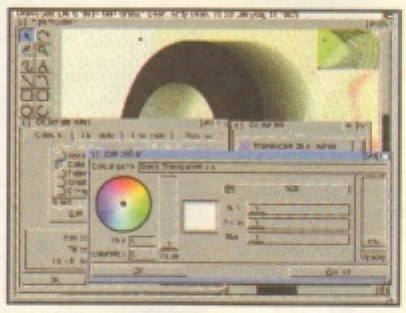
▲ **Step 7** Now check the Clone Prefs are correct for the following steps. Go to the Settings menu, choose Prefs. From the Creation Prefs panel, change the Clone offset to 0 in x and y directions. It means when you create a clone (right Amiga-t), it sits right on top of the original. You can re-position it using the cursor keys as we'll see in the next few steps.



▲ **Step 8** Click on the word CORRECT. Clone it and move the clone to one side (away from the original). Apply a very transparent fill to the original piece of text such as a 13% black. Clone this text, choose Object/Specs menu item and scale the clone 1% bigger by entering 101% in x and y. Use the cursor keys to slightly move the text up and left. Clone over and over and keep on scaling clones until you get the blurring effect you want.

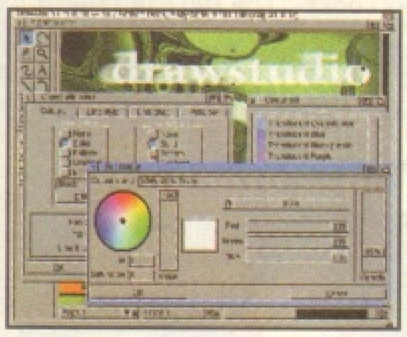


▲ **Step 9** For the final layer of text, select the clone that was placed aside in step 8, bring it to the front (right Amiga-f), and then choose Object Attributes. Give the text a gradient fill like this. Place it over the top of the blurred text.

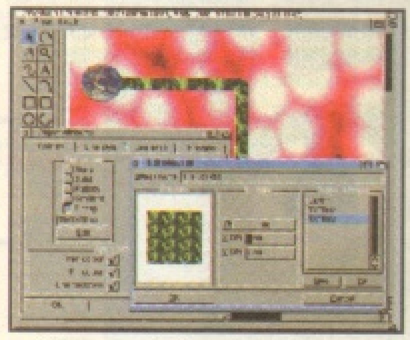


▲ **Step 10** In the example image you'll notice some text "V2" in black. Behind the text you will see another example of using transparent text to create an effect.

This one was done by using a very transparent black and moving each clone a tiny amount to the left without any scaling up or down. Using a Serif style font gives the impression of movement as well.

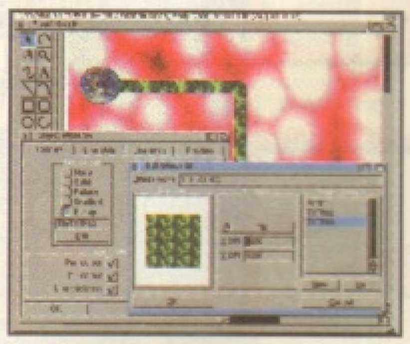


▲ **Step 11** As in step 10, this text uses transparency to create an impression of movement but this time use a solid white for the top layer and transparent white clones beneath. The closer you zoom, the less movement there is as you press the cursor key to move a clone.



▲ **Step 12** On the example image, you will see a line connecting little pictures of earth, which incidentally was taken from Phase 1 CD. This line was drawn using the Bezier/Line tool.

A tip with this tool is to hold down the shift key while drawing the line (keeps it straight) and don't drag the mouse but rather click once to stop the line and continue onwards. To finish, double click the left mouse button. The line is given a heavy line weight of 8 points and a bitmap fill as seen here.



▲ **Step 13** This is what the final image looked like in DrawStudio Lite. To create the sample image, I loaded the saved file into version 2 of DrawStudio and exported as a 24-bit JPEG.

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Next Month CU AMIGA MAGAZINE

Quake

It exists! Quake is finally coming to the Amiga courtesy of ClickBOOM, and you can find out all about it exclusively in the next issue of CU Amiga Magazine. Along with a major preview we'll also have a playable demo on the CD! Promising everything that made the PC version such a hit, it looks like taking Amiga gaming into a whole new dimension.





Only in CU Amiga – March issue on sale 12th February



Calling all user groups!

Do you run an Amiga user group? If so we want to hear from you.

We're starting up a new user group directory, aimed to help you attract more members and direct lost souls to local like-minded enthusiasts.

Our aim is to compile a database of Amiga user groups from all over the world. Once we've done that, we'll publish and update it each month in these pages of CU Amiga. Assuming we get enough returns in time, we'll print the first listing in the April 1998 issue of CU Amiga. If you'd like your club or user group to be included, simply fill in the form below as fully as you can (all supplied information will be published) and send it to the address below:

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Alternatively fax it to 0171 972 6755 or use the online version of the form which can be accessed from our web site at www.cu-amiga.co.uk. This service is completely free of charge.

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Q&A

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Bigtime upgrades

EXPANSION

I am thinking of upgrading my computer BIG-TIME!! I want a PPC board really badly, and to put my beloved A1200 in a nice big tower case. Unfortunately I missed your Amiga tower series so I've had to back order them.

I seem to be quite lucky with upgrades at the moment. My friend sold me his A1200 for £50 with T.V. So I put my A500 under my bed and forgot about it. Later a P.C. owning friend of mine gave me a 540Mb 3.5" HD for £15!! However, I still yearn for more power. I was thinking about upgrading to a 1230-IV 50MHz board but having thought more carefully about it I want to go the whole hog and completely transform my machine.

I have access to a PC midi tower and some memory SIMMs and I am not afraid of a little screwdriver work. So here are the inevitable questions:

1. Does the Z3 board from Blittersoft make the A1200 into as near to an A4000 as I'm going to get without shelling out for one? ie; Can I put a PowerPC 604e accelerator board on the A4000 CPU slot and use the Zorro III slots and other goodies?

2. If I use a PC monitor and the correct adaptor will I be able to use all screen modes without flicker or do I need to get a graphics card with scan doubling capability? If so, which monitor would you recommend?

3. What is the best option for external keyboard? Should I buy an A4000 keyboard or should I get a case for my A1200 one? Will I need an adaptor either way?

Any help you could give would be greatly appreciated. Well I think that's it... Oh no, one more thing. I won't hear a word said against PC owners! Why not, I hear you cry!

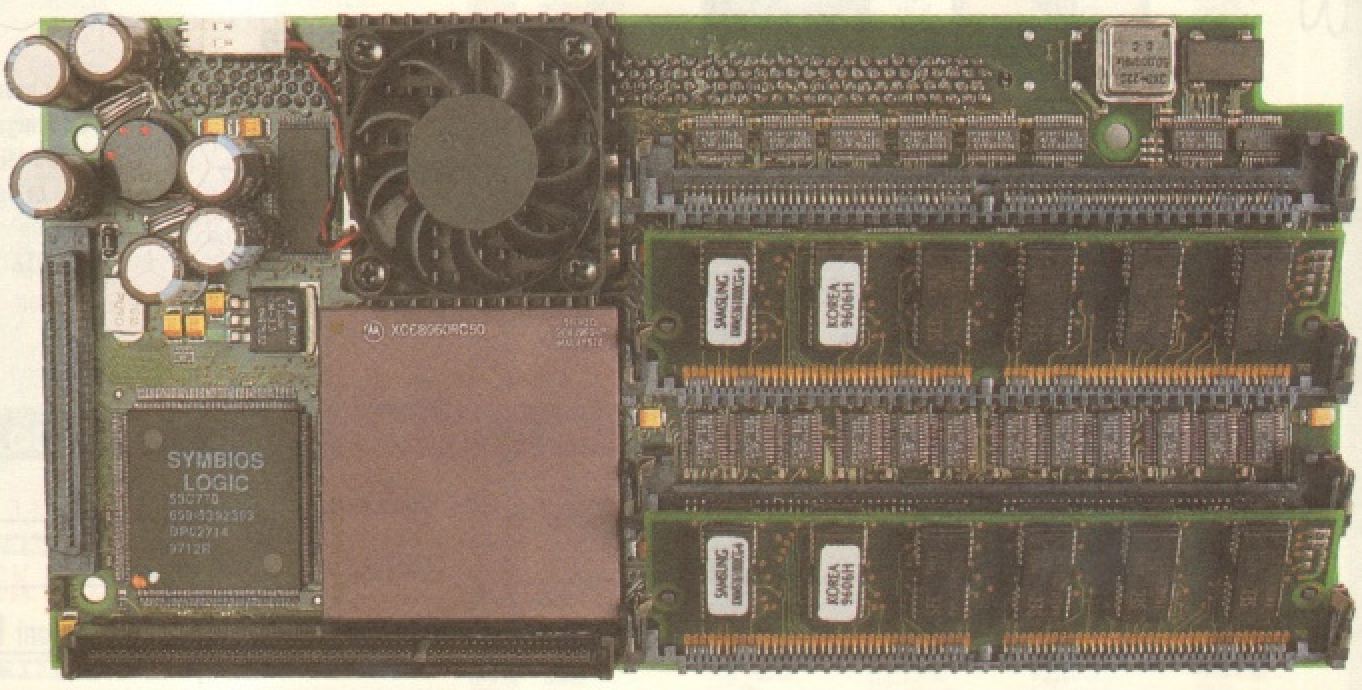
Well if you can befriend one of them who is a constant upgrader you can persuade them to sell (or give you) the parts they remove. 16 speed CD-ROM here I come!

Nick, Stafford.

Hey, you like your exclamation marks, don't you!!

1. In theory, yes. We are still waiting for one of these boards to be sent to us, but no luck yet. It does indeed promise to take A4000 style accelerators and Zorro 3 cards, but how well we cannot say. We've seen them running PPC cards and Cybervision 64s very nicely, if this is the hardware you are after then you should be fine. Other boards may not be so compatible. As for whether the Zorro 3 implementation runs as fast or as compliant as it does on an A4000, probably not but we can't say for sure until we run some tests on it. However yes, it is as close to an A4000 as you will get without buying one.

2. Yes, you will want a scan doubler. Normally these connect to the video socket on an A4000, but the Micronik boards have a problematic video socket. We recommend you either get an external scan doubler or a graphics card with a passthrough adaptor. With this kind of set-up, an SVGA



▲ A PPC card from phase 5, this one designed for A4000s – or any other machine with an A4000 processor slot, like the Micronik 1500.

Tech Tips: Cheap HD floppy

Richard Hodger of Digital Corruption software sent us an excellent tip for people who are interested in using gcr.device (aminet/hard/hack/hidensity.lha or CUCD 16) to give their Amiga the facility for HD disks. He tells us:

"I just thought I'd let you in on a little secret that no-one else seems to want to tell you.

"This is mainly of use for people who bought Tower systems, but didn't have a face-plate for a floppy drive. An Amiga compatible high-density drive (formats to 1.5Mb) is either a Panasonic JU-257A605P or JU-257A606P. These are low-cost and can be bought as a PC drive with a Face-plate! I have successfully jury-rigged one (that I borrowed from work) into an external-drive's case, it works fine." There is a minor problem which is that these drives were designed to be multiformat, and in their infinite wisdom Panasonic hardwired the switches. PC floppies have the diskchange line on pin 34 while Amigas have Diskchange on pin 2 and ready on pin 34.

PC floppy drives also have their drive select set to 1 – df0: should have this set to 0. In other words, you might find yourself with a less than 100% compatible drive unless you make sure that you get one which is configured for the Amiga pin out. Fortunately, Richard tells us that Analogic sell these as a replacement mechanism. £25 for a HD floppy drive anyone? Call Analogic on (+44 (0)181 546 9575 and thank Richard for a great tip!

monitor will do. Iyiama are an excellent if slightly pricey monitor, Smile are a good budget range.

3. Blittersoft (+44 (0)1908 261466) will sell you a Micronik keyboard adaptor which will accept either Amiga or PC keyboards. You can either find yourself an A4000 keyboard or buy a £40 kit from Blittersoft to put your A1200 keyboard into a keyboard case. However as very good quality PC keyboards can be bought for around a tenner, we would recommend getting yourself one of those instead. Ateo Concepts' PC keyboard interface is probably still the best we've tried, give them a call on (+44 (0)1705 790211).

Beer Budget A2000

I wondered if you'd like to do a lower budget version of your advice on expanding an A2000 (Nov, p97).

B is for B2000, and I have one (it used to be an A1500, but the black sticker was ugly) – one of the last of the OS1.3s.

It came with 1 meg Chip RAM, and I have fitted SuperDenise, a GVP SCSI controller with 8 megs of Fast RAM, hooked up to the 50 meg HD mounted on it (50 megs was a lot in those days), and a fourth-hand 320 meg 5.25" full height drive, which takes up the rest of the space in the case. Oh, and it's got a 2.04 ROM, which doesn't do much but RAM-load 3.0 from the HD (sshh!).

I sold my A500 and bought an A2000 because I believed Commodore when they said "Whatever happens in the future fits in here", and that's sort-of true, so long as you don't mind Zorro II instead of Zorro III.

The trouble is, I'm a student, and students have no money. I have been saving up, and can now afford to spend about £250-£300 on my financially neglected computer. Am I right to think the highest priority must be a CPU accelerator, because all the other fun stuff, like a graphics card, a high-speed serial card, and maybe a CD drive wouldn't be that much good without it.

And it's silly to have more CPU power in your printer than in the computer, especially when PageStream can take ten minutes to render a page at 300dpi.

You can't get 030 cards any more, so is £250 for a Blizzard 2040/40 card a good deal, or would I do better to hold on for PowerPC cards to get cheaper (040/25s were two grand when they were new) or even wait and see if I can get a new machine (an A\Box?) when they become available? Is it wiser to plan for a 68K accelerator and a conventional graphics card, or go for PPC and hope for an A2000 version of BlizzardVision?

I mainly use my machine for email and writing essays, but if it were more powerful, I'd like to use it for more exciting (mainly net-related) things.

In particular, I'd like it to be more useable as an X-terminal for the university mainframe (free Internet connections are great); at the moment, it can't even cope with running the (56K) modem at over 19200baud.

What do you recommend?

Duncan Gibb, Edinburgh

OK then! Your budget for expansion is tight, but never say that miracles can't be worked.

As you rightly said, number 1 priority is the CPU. Forget PPC, that will be way over your budget for a while yet. In fact, I would suggest you use one of the uni computers to check out http://thunderstorms.org/AmiBench where you can post or read adverts for second hand amiga gear. The £250 phase5 card is excellent, but you should be able to get something similar for a fair amount less.

A CD-ROM drive is a must – they are far too useful these days not to get one. A SCSI internal device will cost you very little, anywhere from £35 up. Graphics cards are not necessarily out of your reach either, Blittersoft (+44 (0)1908 261466) sell the Picasso 2 for £129.95 new, or try AmiBench for that too.

Faster serial can be done, although it isn't amazingly cheap. Call Active on (+44 (0)1325 352260 and ask about the £80 Hypercom3Z. This has a fast parallel port as well so your printer problems will be solved too.

A quick calculation says the graphics card, the Hypercom and the CD-ROM would set you back a total of under £250 new. That doesn't leave much room for an accelerator and RAM, so you'll have to prioritise your choices – or stretch your student loan a little further!

Bunch of Questions

Hi. I have a bunch of questions.

1. I have an ICS tower for my A1200 with Blittersofts Zorro 3 board. Is it possible to use a Cyberstorm 604e 200MHz PPC with 060 with it. I heard they are only for A4000s.

2. Will a Cybervision PPC work with it ?

3. Where can I get one of the CD32 joypads that have all six buttons in the same place (not with two on the top).

4. Why when I tried to buy a new 060 (the ones with the new mask revision), did some bloke insist that the chips were still the same as the old ones, and that you couldn't get away with overclocking to 66MHz or above.

He also went on to add that the reviews of the new 66MHz 060s were dodgy, biased and he said he didn't trust them ! Is any of this true. (The advert was from your mag.)

5. What happened to the A1200 XL all those years ago.

6. Why has David Pleasance turned into the moody alcoholic looking east end market trader at all the Amiga shows in England ?

7. Is a 'Catweasel' a real animal ? Cheers, I hope you can answer these questions.

Mat Fenton, email

1. Yes, you can. the Micronik Zorro 3 board has an A4000 style accelerator slot.

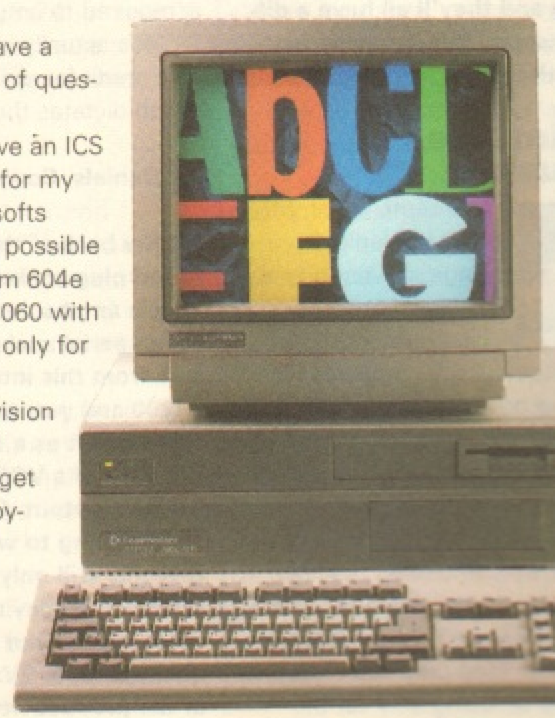
2. In theory there should be no problem whatsoever, on the hand Cybervision PPC isn't out yet, so we can't be 100% sure.

3. Never heard of them. Maybe one of our readers can help you?

4. Presumably this "person" you spoke to sells a board which doesn't run at 66MHz? He thought you should buy his instead, Hmm? Right... Did he give any reason why he thought the review was dodgy or biased?

We have absolutely no biases towards any software or hardware companies. Why would we? On the other hand it is not uncommon to find retailers biased against products stocked by rival retailers.

Who do you believe, us who have the advantage of having actually used



An A2000. Old, but give it some expansion and it's still bloody good.



▲ A tower case like this one is the ideal way of connecting a CD-ROM drive.

the product and seeing it running perfectly for a couple of months and no commercial interest, or someone who's never tried the board and wants your money?

In short, they were talking out of their backsides.

5. Good question. We never saw one.

6. David Pleasance has been moping around ever since his girlfriend left him for a large German with a wad of cash.

7. Ask a hundred zoologists this question and they'll all have a different answer. This question has puzzled the sages for centuries.

Multimedia confusion!

I'm currently on an MM course at Henley College, Coventry and am investigating an Amiga purchase as a WIN95 alternative for graphics etc and intend downloading to video tape. Is this a built in facility with all Amiga's A1200+ ? I don't necessarily need high-spec (such as an A4000) as I'm not in corporate business. If not I would need to know what cards are available and whether any allow recording from computer at 'long play' rate.

I Intend on using a TV for the VCR display, but am looking at 17" monitor for my existing PC and also the Amiga when required (rather than buying Amiga specific monitor as well) so I'm investigating how to fit graphics card to Amiga and link to PC. Keep the info coming in your mag won't you. I Realise you are probably inundated with queries and hope the queue is not into '98 already!

PS: I'm confused re: FAQ Sept – As I understand, a basic A1200 is s.l.o.w so how come a fast Pentium is required to emulate one? Are A1200s actually a lot faster than I give credit for or is it the emulator which dictates the speed?

Jill Daniels, Coventry

On the back of the A1200 is a small round plug socket marked RF out. This is an absolutely standard television aerial socket. Plug an aerial lead from this into the back of your A1200 and you can plug it into a TV to use it as a monitor or into the back of a VCR and record the Amiga's output. Great, huh?

The thing to watch out for is that this will only work if the Amiga is displaying in PAL mode. Other modes run at different frequencies than TVs or videos. Most of the productivity modes of the Amiga A1200 will display on a PC monitor, but the PAL modes won't unless you get yourself something called a scan doubler.

As for why emulators run so slowly, it is because an emulator has to translate the programmes on the fly. Think about it this way: if you want to read a book in a language you don't know, it will take a long time to read even if you have a translation dictionary. As for the queue, if we answered Q&As on a first come first serve basis, you'd have to wait until about 2120 AD for your answer. We don't answer them all 'cos there isn't enough space or enough time.

We select letters based on how useful the answers would be to our readers in general, how interesting the question is, and how easy it is to get it onto the page – ie; literate, concise e-mails or letters on disk almost always get in, rambling, hard to read handwriting almost never does.

Tech Tips: Connecting a CD ROM drive

Here at CU we don't think anyone should have to miss out on the CD-ROM revolution, so here is the guide to the cheapest possible way to get yourself a CD-ROM drive.

1. Buy an internal IDE CD-ROM drive which is 100% ATAPI. Shop around, slower drives are stupidly cheap as end of line stocks. 2 speed drives have been seen for as little as £16!

2. Buy yourself the software. IDEFix '97 is current leader of the pack if you are willing to put up with nagging requesters until you pay the registration fee, alternatively go for AmiCDFS. Both are available for a pittance from any PD library.

3. Find power for the drive. If your A1200 or A600 power supply is reasonably beefy and unstressed, then you can take power from this, look at solution a. If it isn't, look at solution b.

3a. Use the header on the A1200 motherboard which the floppy drive is connected to. The CD-ROM uses larger plugs, but only the size is different. Any computer parts supplier can sell you a cable which splits a CD-ROM style (3.5") power connecter to two floppy disk style (2.5") connectors. One small connector goes to the floppy, one to the motherboard. The big connector goes to the CD-ROM drive.

3b. The CD-ROM drive can be powered very easily from a PC case power supply. They have connectors which will slot straight into the CD-ROM drive. Take one from an old second hand case, or buy one new, they cost about £15. Better, buy yourself a mini tower case, it will house your CD-ROM drive more cleanly and gives you a convenient switch. If you do power your CD-ROM drive separately from your Amiga, switch on the CD-ROM drive first!

4. Set the jumpers. At the back of the CD-ROM drive there are a couple of jumper switches – pins short circuited together with a small metallic clip – which specify the device as being either master or slave. Your hard drive should be master, your CD-ROM should be slave.

5. Connect the CD-ROM drive to your Amiga with an IDE cable. The important thing to remember is that the side of the ribbon cable with a stripe down it should connect to pin 1 of everything you plug it in to. If your Amiga fails to boot, you may have an IDE device plugged in the wrong way.

Note that the IDE connector on an A1200/A600 is 44 pin, while your CD-ROM drive is 40 pin. An unfortunate oversight on Commodore's part when they designed the machine. You will need to buy a special adaptor cable – if you have a 3.5" hard drive, you'll have one already.

You will also need to make sure the cable has three connectors on it, one for the CD-ROM, once for the hard drive and one to connect to the motherboard. Phone your favourite Amiga dealer, this is a specialist part.

6. Power up and install the software, following the instructions which come on the disk.

7. Enjoy all the best new games, applications and compilations. You'll never look back! Total outlay varies depending on the details you employ, but this can set you back as little as £30-£40 if you shop around!

DIY suppliers:

Eyetech	01642 713185
Blittersoft	01908 261466
Maplin Electronics	01702 554000

E is for... 'Everything you could ever think of that's Amiga related, or just about...'

This month John Kennedy gets his gnarly old teeth into all things E. 'Ere, got any E's John?

E is for...

Echo
An AmigaDOS command which copies, or echoes, text to the screen. It's useful in scripts to pass information to the user, so they know what is happening. The text to be displayed is included in quotation marks, as in ECHO "Hello, World!"

ECS
The Enhanced Chip Set. Before AGA, came ECS and we all thought it was wonderful.

It amounted to some new obscure screen modes and more Chip RAM. Rumour has it that the ECS was Commodore's first chipset in such a long time because they had actually lost the plans to the original, and so the ECS was released as a test to see if they had it right. ECS appeared in the A500plus and A600.

ED
The person in charge of the magazine, and also the text editing program supplied with AmigaDOS.

Ed has grown into something of a monster, with full ARexx support but it still isn't much fun. Most serious users replace it with GoldEd or Cygnus Ed as soon as they realise what they are doing.

Edit
If you thought ED was bad, Edit is much, much worse.

Edit is a command line text editor, which means it works only a line at a time.

It was extremely practical back in the good old days of terminals connected to mainframe computers – and you can use it over serial links if you really want to – but it's best ignored nowadays in these enlightened times of Windows, Icons, Menus and Pointers.

Else
An AmigaDOS scripting command, optionally used in conjunction with an IF/ENDIF construct to move the flow of control to another part of a script when the original condition is false.

Here's an example script which demonstrates it in action. This will only work in a file, not typed at the Shell.

```
IF EXISTS  ram:env
ECHO "Ram Env found"
ELSE
ECHO "Ram Env not found"
ENDIF
```

Emerald
One of the standard fonts supplied with Workbench. One of the ugliest too.

Empty Trash
The Amiga has a trashcan icon, where unwanted files can be stored. It's an idea pinched directly from the Apple Mac, although the manner in which it is implemented makes it almost useless.

There is a menu option from the Workbench screen called "Empty Trash", but you will probably never use it.

EndCLI
An AmigaDOS command which closes the current Shell window. Identical to EndShell for all intents and purposes.

EndIf
Used to terminate and IF structure within an AmigaDOS script. See Else for more details.

EndShell
See EndCLI.

EndSkip
AmigaDOS scripts can become quite complicated, and it is sometimes necessary to avoid entire sections of commands.

This is done by "skipping" them with the Skip command. The EndSkip command is inserted at the end of a block. Yes, it is pretty messy.

Env
A directory in RAM disk which stores information such as settings for various applications.

The information is stored in Env-Archive, but copied to Env in RAM at booting time. This makes it faster for applications to access it.

EpsonX/Q
Printer drivers. Epson is such a big name that many printers offer Epson compatible printer modes. If you simply cannot get a printer to work no matter what you do, try setting it up in Epson mode and using one of these drivers.

Escape Sequence
For historical reasons, certain sequences of characters are called "Escape Sequences" and generate certain actions in terminals and shells.

The actions aren't terribly exciting, and are really limited to changing the colour of the text or clearing a window. They can occasionally be useful.

Euro36/72
Two screen modes present with the AGA chipset.

Sometimes Euro72 is useful when trying to persuade a PC style SVGA monitor to work with the Amiga.

Eval
An AmigaDOS command which is short for "Evaluate". When passed an argument, it tries to "work it out", and so it can do sums, convert hexadecimal numbers.

It's handy for doing quick sums at the Shell, or when writing stupidly complicated scripts which need variables updating.

Exchange
The Commodity Exchange program is a useful little utility which keeps an eye on any other Commodity utilities currently running.

Exchange can kill these uti ties, or force them to open up their user interface.

Execute
An AmigaDOS command which causes text files to be loaded and run as AmigaDOS scripts.

Without execute there is no way to deal with text files as anything other than text files. An execute is automatically performed on the Startup-Sequence file when the Amig boots up.

Exists
Used by AmigaDOS scripts to test if something is really present or not. See the definition of Else for an example.

Expansion
A drawer on the Workbench which was occasionally used by hardware to store drivers.

Shouldn't be required from Workbench 2 and onwards.

Extended Selection
Selecting more than one icon at a time.

You can do this by holding down the shift-key when clicking on icons, or when dragg the mouse around the deskt with the left button held dow

Useful for copying a large number of files at a time.

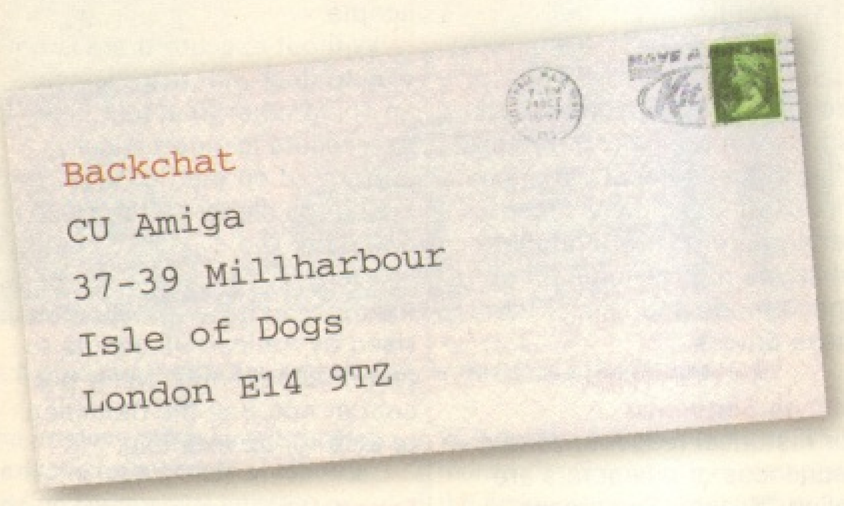
Extra Halfbright
A graphics mode present on the original graphics chipset.

In those days, we were limited to 32 colour on screen a once, or HAM mode which squeezed out 1024 colours b with some severe limitations.

Halfbright gave us 64 colours, by creating a secon set of 32 with half the inten of the first. Used in some games and art programs, bu generally considered too mu hassle.

Backchat

We shout the odds all through the magazine every month. Now it's your turn. Write or preferably e-mail us at: backchat@cu-amiga.co.uk



Gloom fixed

I'm a regular reader of your magazine and I've all your CDs except for CUCD1. I've found all of them to be very good value. My problem is on CUCD17; the Gloom demo appears to have a file missing and I'm unable to try the demo from CD as stated.

I've searched the CD for the file but cannot find it anywhere. It's supposed to be in the root directory. Can the necessary file be added to a later CD? Also can I purchase a copy of CUCD1 as this is the only one I haven't got and I'd like my collection to be complete?

P Brown, E. Sussex

There was a problem with the Gloom demo as you say. You should find it on this month's CD in a working form. The first CUCD is no longer available as it has sold out completely.

TFX manual: a fiver

Looking in my local news agent for your great magazine I came across another mag called Focus, December issue. It looked interesting so I bought it. I found a wonderful article by Steve Boxer about the Amiga.

It contained details about the Amiga/Gateway saga and a review about its chequered history with Commodore and Escom. He said "if the company [Gateway 2000] can get a credible product in the shops, I would sink to my knees in admiration". Strong stuff you'll agree.

The article itself didn't tell me anything that your good selves hadn't already informed me about, but what was notable was that this was the first time I had seen something positive about the Amiga outside the dedicated Amiga press. Could this mark a turning point for the Amiga? I for one hope so.

Also, after your incredible TFX giveaway – I thank CU, times 10 to the 45th power – I noticed that Software First was selling the PC-CD ROM version of TFX for only a fiver. I bought this because it comes with the full manual. I've checked the controls between your hints guides and the manual and they appear to be the same and you get a nice TFX box to put your CU cover disk into.

So I would urge folk out there to buy this as it would at least show your appreciation to Ocean/DID for doing a very decent thing and allowing us Amiga folk to enjoy their wonderful flight sim.

And finally, does anyone out there in Amiga Land know how to get the "secret Targoid ship" in Frontier-Elite II? I bought Tony Dillon's Secrets of Frontier Elite which was very helpful for a great many things, but has left me more confused than ever about this Targoid ship. Please help, it's driving me mad!

Finally, if David Braben is out there reading this then where the heck is the Amiga version of First Encounters Elite III? Come on Mr Braben, us Amiga folk deserve it!

G Houton, Renfrewshire

Where indeed? Tony Dillon proved to be a bit hard to track down this month so we couldn't ask him about the Targoid ship. If you get off on people outside the Amiga press talking about our favourite machine, point a web browser at www.rust.net/~mignash/hm97.html or change the 'hm97' part to 'hm98'.

Fall of the PC empire

For some years now I've owned an Amiga 1200, and in the last three years I've been on two computer courses where PCs and Macs have been used, and in all honesty I have to say that my upgraded A1200 is a better machine.

On my courses while talking to the tutors I mentioned what machine I used and they both replied the same "Oh the Amiga, that's a 16-bit kids games machine", so I brought my "kids games machine" in to show what it could do. Well it must be doing something right as they are both now proud A1200 owners. What was that old addage; "Seeing is believing". Previous to the A1200 I had an MSX computer, which was to be the new direction in home computing, till it bit the dust. Why? Simple, no software etc, so I have had past experience of failed computers. I am now writing to warn others who want the Amiga to survive to support the machine we all have come to know and love.

Could you imagine a PC owner having the same loyalty as the Amiga has? This is the great strength of the Amiga. Its users know how good it is, otherwise it would be dead and buried by now. So with that said could I put forward three suggestions to those who like me want the Amiga to rise again:

1. Gateway; Try pulling your finger out and put your money where your mouth is.
2. CU Amiga; Keep publishing the mag. We need a focal point of contact and you're IT – as far as most Amigans are concerned.
3. Amigans; Stop harping about old 500s and 600s, UPGRADE! Get a 1200 and stop slagging off about software etc for what are in all honesty Dodos. A second hand 1200 costs about £150, a new one is about £240. Compare that to a PC or Mac for goodness sake. If you can't afford to even buy a second hand machine maybe you should consider taking up another pastime like bungey jumping with an ordinary rope. UPGRADE!!

It's a pity Commodore didn't perform half as well with the Amiga as you have with the magazine. If they had, the Amiga would've been leading the home computing market, and not struggling like at present. We may be down but we're not out.

Eamon MacAnna, Beál Feirste, Eire

"Could you imagine a PC owner having the same loyalty as the Amiga has? This is the great strength of the Amiga. Its users know how good it is, otherwise it would be dead and buried by now."

Where are the games?

In the Nov 97 CU Amiga there was an excellent article in the Points of View section. It was Andrew Korn's piece about the Amiga being alive and kicking but nothing being available in the shops. I quote, "products are coming, games like Myst, OnEscapee and Gloom 3 have the potential to get people excited again.

The question is will they be widely available?". Well the first time I read this I thought to myself, "of course they will be available, I've been assured by Epic Marketing that the two games I want (Gloom 3 and Street Racer) will definitely be in Game and Electronics boutique!

However last weekend I went to these shops in Newcastle (a big well known city not some piddly little village) and Metro Center (the largest Shopping Mall in England!) and was informed by both Game and EB that they had never heard of Street Racer or Gloom 3 and that the only game they had 'pencilled' in for the Amiga in the last two years was Champ Man 2 which they said had already been delayed ten times!

"All that John is saying is make a PC. That isn't an Amiga."

This makes me wonder why companies bother publishing games for the Amiga at all. I'm not saying this because the Amiga is a dead format or because not enough people have high spec Amigas to run good games, I'm saying it because they publish these games and advertise them in their adverts but they NEVER seem to hit the shelves!

I am probably right in saying that most buying is done via shops (hence their existence) and that mail order is not as good a way of selling things as actually having them on a shelf where hundreds of fans will visit every single day! So why don't the distributors get off their butts and get the games in the shops?

This way more will be sold, distributors will get more money, demand for Amiga programmers will rise, and in the long run more games will get into the shops and we may even see the Amiga section growing bigger than the Atari 2600 section!

Gareth Murfin, gazy@globalnet.co.uk

Kennedy fan club no.1

Its just obvious that some of us 'Amigans' are not as close to the Amiga as we think we are.



▲ OnEscapee, in a shop near you soon... hopefully .

Take John Kennedy as an example, With his warm comments about what he thinks of the Amiga's future and what should be done.

He says that the 'New Amiga' should be a black box, that plugs into a T.V / monitor and gives you access to the Internet and a whole lot of other things. I actually thought this was a good idea. It has to be done because we need Internet Explorer or Netscape (OK get them ported), and in his own words "forget AmigaDOS and the Workbench".

Now hang on a minute. WindowsCE, isnt that used on them Psion things or something similar? Why would we want Windows? One of the main reasons we stick with the Amiga is because of the easy use of Workbench, and how it interacts with the user.

All that John is saying is make a PC. That isn't an Amiga. The Amiga is one of a kind with its own operating system and own technology. So what the hell is he on about? We dont want to fall to Windows – if we did we would have changed over to a PC already.

Also the games scene for the Amiga is looking great. I today downloaded a demo of Foundation, and I am definitely going to buy it. For one person to create a game like that is amazing. Maybe he did have some help, but this guy is extremely talented indeed.

Also there is Myst, Explorer 2260 which I can't wait for, and many more games that require a proper machine to run. Leaving on a good note, I have come across the Nova Design website. They are creating PPC Amigas, in many different ranges and are quite cheap.

They include amazing 3D capabilities and much more. I think this is what the third party Amiga manufacturers need to do. We dont want 030, 040 or even 060 because they are just too slow now.

Now it's down to us people. We need to keep the Amiga alive, otherwise, get used to WinblozeCE or whatever. We can get through this, and we are going to get through it, just stick with it.

Aaron Newitt, Birmingham

Kennedy fan club no.2

What on earth is John Kennedy dribbling on about? Replace the AmigaOS with Windows CE? Is he mad or what?

The entire REASON Amiga users are still using the beast is because of its ease of use and straightforward operating system! We do NOT want something that takes up 8Mb of ROM just to get a bloody operating system (if you can call it that!) up and juddering along!

The Amiga's OS is compact and very quick, certainly a lot faster than any version of Windoze I've seen running on any Intel CPU. We'd very much like to keep it that way thanks! Please lock Mr. Kennedy up in a room of PCs and only let him out when he starts to scream. Then we'll have no more of this crazy talk!

Neil Sanderson

That's opinions for you! We believe the way forward is for everyone to have their say, and that includes you of course.

By the same token, we don't vet the Points of View section to make

Controversy of the month

Brink of insanity

I think that the loyalty of Amiga users has reached the brink of insanity. For the price of an accelerator one could purchase a top of the link Pentium 200 if not a 300MHz Pentium II, complete with 32Mb of RAM, 4Mb graphics, 16-bit sound, network card, high speed serial ports and SCSI.

This will run virtually all software. If that isn't enough incentive for anyone to drop their Amiga-nautic upgrade ambitions, one can draw the conclusion that insanity abounds in this community.

I think that Amiga Inc should take an invite to make 040 boards and 4Mb graphics cards, as well as OS 3.1 available, new or used at low cost, to inject a little bit of adrenaline in the vast communities of 020 and 030 machines which are at best meek marvels of yesterday.

If all Amigas were equipped with at least a 25MHz 040, OS 3.1 and 4Mb Cybergraphx, there would be much more consumer confidence and I think that new innovations like the ones from phase 5 would be more likely to succeed.

It is moronic to release machines with anything less than an 060. The A1200 should be banned!

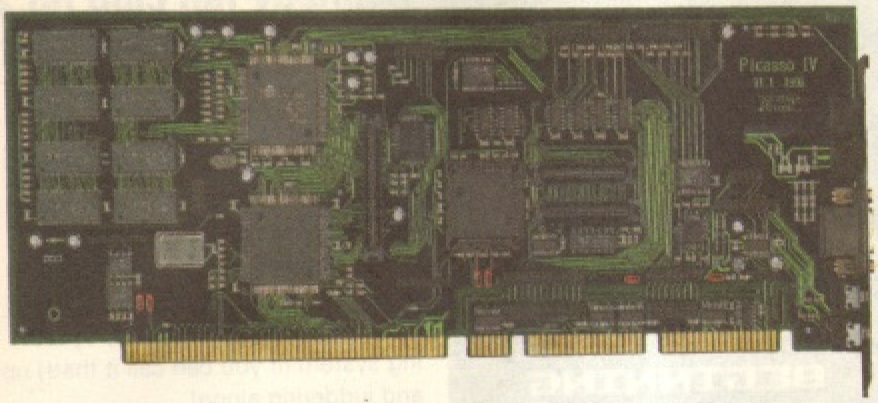
Bold steps are needed. Check out the Mac. The 604e is all but obsolete already, just as it has become available on the Amiga platorm. When Apple jumped off the 680x0 line development all but stopped. I think that this will be true of the 604e line. Don't expect to see them get any faster. After all, who is going to sell them?

Patronising the 020 and 030 crowds, deeming them acceptable machines is doing more harm than good. If people have such low expectations from their machines, Amiga will only cater to low expectations and thus be an inferior machine in the computer world.

Shane, via email

The voice of reason or just another new PC convert snubbing his smug nose at the Amiga scene? Are we really all doomed? Is the PowerPC route a deadend? And just where does belly button fluff come from? Let us know what you think of it all.

Continued overleaf ▶▶▶



▲Picasso IV, not so affordable to all and sundry.

sure everyone always sings the praises of the Amiga. Blind faith is dangerous – we prefer a good healthy debate.

Wrong end of stick

So, now I read in the web directory that what our dear ole Petro Tyschtschenko (god what a difficult name to spell, I guess he hasn't experienced much cheque fraud) wants to see in the future is an Amiga with a 68080 processor...

How the dingel-o-dongs name does he think that he will manage that? How will one single company manage to revive a CPU that is thought of as obsolete by most of the computing society and the manufacturer? Dear CU, as one of the major entities in the Amiga community I firmly believe that it is your obligation to sway Petro boy away from this foolish notion.

Another very concerning statement that I read there was that Petro didn't want to rewrite the OS for a new processor! My god, what is it with this man? A new processor is critical for new and improved speed, then a dual-CPU period is inevitable (we have this transit period now with phase 5 boards).

But please, Amiga International must push the Amiga community forward into the next stage: the RISC era with a RISC optimised OS. We can all check out the efforts Apple made with their first PowerMACs where there was an OS running 68k emulation.

It is high time that Amiga Int get their finger out of their you-know-what and show the Amiga community how we will enter the year 2000, and most importantly it should be a bold move that shows the Amiga community that we are really back for the future, and that's not a last wimp attempt to squeeze some cash out of the game entertainment market.

As a little example of bold innovators in the Amiga market I present to you ClickBOOM. With their latest game COSMIC they truly set a standard for the Amiga scene by recommending these hardware specs for the game: PPC, graphics card, sound card, 12x CD-ROM and a whopping total of 32Mb RAM. I sincerely hope that they will have success with this game so that it can show the rest of the Amiga manufacturers of hardware and software that it's sink or swim (did you read that Petro? That's aimed at you). Thank you for listening to a mad Norwegians ravings.

PS: How is it going with those 680x0 inside/Powered by Amiga stickers?

df397aa@itstud.hifm.no

You've managed to get the wrong end of two sticks in one letter. Well done!

First let's tackle the 68080 issue. What Petro meant was "wouldn't it be a whole lot easier for us all if there was a 68080 chip that was comparable to a PowerPC. That way it could just

"Another very concerning statement that I read there was that Petro didn't want to rewrite the OS for a new processor!"

be dropped in place without the need for all this re-writing of software and the operating system. This wasn't a serious suggestion that the Amiga continues with a progression of the 680x0 series.

Next, this game called COSMIC doesn't exist and it never will do. ClickBOOM are merely stating the kind of system requirements that would be required for various types of games, should they be written in the near future.

They are saying that the game that requires a system such as you mention would be "cosmic".... as in "extremely good".

Mega bucks

I always look forward to seeing the magazine in the store again, especially with the CD attached.

But I also dread to read it.You ask yourself why? (at least I think you would) Well ,I shall explain. Every month you review something great, and that is the problem.

Again I have to look at something great that I can't buy... like:

squirrelzip gold pack £179.95
squirrel cdr GT £ 399.95
scanquix 3 £ 59.95
HP scanjet 5P scsi £175.00
Fusion £49.95
603e powerboard 060/50 £599.00
infinitiv towerkit £159.95
zorro III slots £319.95
pcmcia adaptor £29.95
keyboard case £39.95
printer epson £359.00
picasso IV £249.95
prelude soundcard £169.95
digipens £109.95
ariadne £129.95
17" multisync monitor 1701 £399.99
Total = £3432.39

That's a lot of money, so count yourselves lucky at the magazine that manufacturers mail this stuff to you for evaluation and that you can go to the boss and ask for funds.

I'd need about 3 to 4 years to save this kind of money. And when I have to think what it would cost me if I had this set up. I could emulate a PC with Windows95 and a full Mac, I would need to buy Mac and PC magazines and games too.

The delay in development of the Amiga may have been bad ,but for me it gave the machine extra value, unlike my brother who bought a top range PC a year ago that is now an entry machine, my miggy was useable longer.

Don't think I didn't upgrade, I bought an accelerator card (030/25/882) I bought a squirrel (and after a year a surfsquirrel with a 33.6 modem) and a scsi 1 gigabyte harddisk) actually I bought an A2000 first and wanted to upgrade that but decided an A1200 would be a better deal, I upgraded it to the setup given above and last summer bought a second Amiga for 600 guilders cheaply (as a replacement if the old one should croak).

But I now see that I cannot keep up in the race, so I have to fold and stick with the set up I have now.

Dennis Eijs, Netherlands

To the Point...

OK online

I'm just writing to thank you for the excellant Net trial with UKOnline. With your help from the Wired World and Surfs Up! columns the Internet really is fun to use on the Amiga. Many thanks, and keep up the good work on the magazine

David Steele, via email

Can't get off

Thanks for the free Internet trial with UK Online. Slight problem. Three days now, I have tried to disconnect, but my willpower is gone. My brain is overheating, information overload.

Who haste casted upon me this spirius cookie. Now if I could only reach that off button. Nah, I'll just have another hour...

Lazy Bone, via email

TFX dodgy disks

What can I say about TFX... absolutely 22 carat brilliant. A little request though. Please, have a word with your disk copiers as most of my TFX disks had errors and I eventually got them replaced.

I've got this month's CU Amiga and went to install PC Task and guess what... more errors on the disks. I know I could get them replaced but I just wish they'd use some decent disks. Anyway keep up the fine work

Graeme Wakerley

We're not sure what happened with those TFX floppies. The disks were certainly from a bad bunch and we've since had stern words with the duplicators. It seems you just got unlucky with PC Task though, as new, higher quality disks were drafted in by that stage. Any faulty cover disks you might come across will always be replaced.

CU Amiga reserves the right to amend or edit readers' letters submitted for publication.



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Points of View



**Time again for a few more opinions...
Please note that the views expressed are not necessarily those of CU Amiga Magazine.**

The best advertising money can't buy



For what amounts to a pretty minor dent in their bank balance, Gateway bought up the rights to the Amiga from Escoms liquidators. From this they have the potential to open a significant new marketplace, the low to mid range home computer market. These days everyone wants access to multimedia, to the internet, to top games. Right now the only real choice is to spend £1000 plus on a PC, and for that you hardly get the most user friendly of machines.

Gateway undoubtedly bought the Amiga well aware of the potential the platform has for graphics, multimedia and embedded system applications, but to their own long term plans, it is the home computer aspect which will be most interesting. In common with most large PC manufacturers, the last year or so has shown them that diversification is the key to success in the computer market, hence their moves into server systems, laptops, and products like the Destination TV/PC.

Getting an A500 for the 90's into the mass market will take a lot more money than the property cost in the first place. It would be easy for AI at this point to let the market tumble along at its own pace for a little while. After all if they want to make the Amiga a mass market product they are going to have to address the concerns of a far larger constituency than the current Amiga crowd, so it may seem to them that supporting the current community isn't as high priority as preparing for the next.

They are well aware of the value of the expertise there is in the market, companies like Phase 5, Index information and HiQ, who have produced revolutionary hardware designs. They recognise the importance of software houses like Newtek, Cloanto or Haage & Partner who have produced some of the Amiga's defining software.

They also appreciate the importance of companies like Vulcan and ClickBOOM who do so much to keep the games market alive, and the importance of those hundreds of developers who distribute via the Aminet and have made it the ultimate software resource. The question is whether or not they truly understand the value of you.

"AI have a vast worldwide advertising campaign just waiting for the word. To buy advertising like that would cost far, far more than buying the company."

There isn't another market like this one. People think Apple users are loyal, but they are grandmother sellers to a man compared to the Amiga community. By buying into Amiga, Gateway bought AI literally tens of thousands of evangelical salesman and PR people who will happily spread the word for free.



If the guys at AI were to read the post we get they would see letters from the readers who went into their local Escom shops and installed demos on the Amigas there so people could see something more interesting on display than a 4 colour Workbench, they would hear about the people who go to an evening course on computing and bring in their Amiga to convert the teachers, the people who supply technical help to local Amiga users free of charge, the people who advise friends and family on their computer purchases and would have them buying Amigas like a shot if there were any in the shops.

Quite simply, AI have a vast worldwide advertising campaign just waiting for the word. To buy advertising like that would cost far, far more than buying the company. If AI know what's good for them, they aren't going to let that free advertising walk away.

It's time that AI really did something to tell all those people out there that what they have done is appreciated and will be repayed. No-one has infinite patience, and the re-appearance of an owner isn't enough to stop the market haemorrhaging users. So AI, get your finger out and say "thanks, and stay with us". You have been quiet too long and in the final analysis it's yourselves you are hurting.

Invest a little now – how much would it cost to prove to the market your seriousness, your willingness? To buy the current user base a small present or two? Compared to what AI have to spend on marketing as a whole, spare change. Spare change spent like that is an investment the likes of which give advertising and marketing people wet dreams.

■ **Andrew Korn, Staff Writer.**

"Right now the only real choice is to spend £1000 plus on a PC, and for that you hardly get the most user friendly of machines."

The dangerous games

There's a dangerous game being played out there in the world of Amiga development, both for existing machines and for the "Amiga Of The Future", whatever our new friends in South Dakota determine that to be.

Yes, this is about custom versus standard chips, but trust me, it's not the same old argument of purity versus "cloneism" – the argument that says that if Jay Miner intended for the Amiga to use industry standard parts he wouldn't have stayed up late drawing out the original chipset with pencil and paper and revolutionizing the world of computing, he would have bought some cheap chips from Yamaha and been done with it.

It's clear in this day and age that the development of components from outside strictly Amiga camps has been an unambiguously good thing for users.

Without them, we would have no true 24-bit video, no 16-bit audio, no ultra-fast serial ports sitting on clock headers and no cheap PCMCIA ethernet cards, to say nothing of a supply of high-density floppy capability.


Cybervision 64

All of these developments have come from the third-party Amiga developers, who have had to act largely without supervision or guidance for most of the last four years.

And it has been the unique blend of their expertise and knowledge of the Amiga and the commodity component markets that have brought these wonderful products. Of course, it has not always been easy.

To cite one example, Phase5 at one point faced lead times of four months on the S3 SVGA chips that drove the original CyberVision 64.

"... when you're not tied to a particular supplier by being owned by the same company, you can play the market for better services at better prices..."

When the ultimate control of componentry lies in someone else's hands, you suddenly become just another bidder for their services – a bit different from the days of Commodore and their wholly-owned chip fabricating subsidiary. Sure, they had schedules too, but it was a little easier to pick up the phone and get priority when you were part of the same company.

Nobody at Amiga, Inc. is likely to tour for-sale chip fabrication plants to ensure that future Amigas get the components they deserve. In fact, Amiga, Inc. is divorcing itself as much as possible from the actual hardware manufacturing possibilities of the Amiga, preferring to license out, which they have started in earnest.

Their licensees to date have been relatively small firms who don't own fabrication plants, either. They work on contracted demand – demand from Amiga, Inc. for the OS and chipsets, demand from various other outsourced suppliers for CPUs, other chips, motherboards, casework, etc. All that this means is that the production of Amigas has a few new variables thrown in.

There's a lot of potential for this to work well: when you're not tied to a particular supplier by being owned by the same company, you can play the market for better services at better prices (Commodore's chip fab proved incapable of manufacturing AGA Lisa, so HP had to be contracted!).

Don't feel too bad for the industry – this is how the PC clone market works, and it does seem to be working for Gateway, doesn't it?

■ **Jason Compton, US Correspondent**

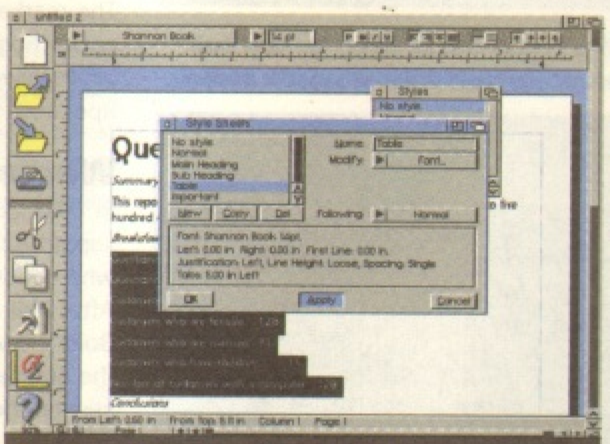
Where now for Amiga software?

There are two key areas to a successful computer, one is great hardware and the other is powerful and affordable application software. Over the last twelve months, we have certainly seen some really excellent pieces of hardware.

Reasons to be cheerful for sure but what about Amiga software? Look at the amount of software coming in for review and you'll see hardly any.

Worried? You should be. The majority of Amiga owners have never whole heartedly supported software. Honestly, they haven't. There will be those of you shaking your heads and saying "I do" but you my friend, are in a minority. Appreciated, but still in a minority.

Having been in the industry for many years now, I know the important numbers for many software packages and it isn't pleasant reading. In one case I know of, the uptake of one package is less than half a percent of the total CU Amiga readership.


Pagestream 3

Add the other Amiga magazine readership to this and those that don't buy Amiga magazines and that percentage drops to even lower levels. So what is the future for Amiga software if this is the level of support we can expect?

There are two possibilities. One is that within two years there will be no or very little up to date commercial Amiga software available and do we really want to see that happen?

Of course not. The second option is for those that have so far failed to support the Amiga, to get out there and buy at least one piece of Amiga software and show authors that their work is valued by the Amiga community.

"... many software publishers are really hurting. If they don't get your support, who loses out? You do. We are not talking charity here."

All it takes is five percent of the current estimated Amiga ownership to make a product pay for its development (a year, perhaps two) and encourage the author to stick with it. Five percent! Is that asking to much?

I agree that the Amiga software market is perhaps no worse than the PC one in terms of percentages of units sold and sure, there are arguments for and against coverdisk mounted software but folks, many software publishers are really hurting. If they don't get your support, who loses out? You do. We are not talking charity here.

The prices of many software packages are very cheap indeed and for the money, you get good value. Packages like Wordworth and Final Writer stand up very well when it comes to ease of use and the features you get.

PageStream 3 is perhaps one of the all time best desktop publishing packages I've used and when it comes to simplicity, DrawStudio is so much easier to use than the PC equivalent. I certainly know that when it comes to pixel pushing, I would rather edit an image on the Amiga than try doing the same on my PC.

The future of Amiga software is in your hands. Don't let it slip. Okay guys, you can have your soap box back now.

■ **Larry Hickmott, Contributor**

TECHNO TRAGEDIES: The Jupiter Ace

Techno Tragedies is dedicated to the memory of those technological innovations which somehow never quite caught on. This month we pay our respects to the Jupiter Ace.

Born 1982

Died 1985

What was it?

Back in 1992 when my friends had sold their ZX81s to help pay for the ZX Spectrum, and the Amiga was still a glint in the eyes of some American dentists, I did something odd. While everyone in my school was waiting for their Spectrum order to get to the top of the heap, I decided to buy a Jupiter Ace instead.

Designed by ex-Sinclair Research staff Richard Altwasser and Steven Vickers, the Ace was a Zilog Z80 based computer. At the time, the guys at Jupiter Cantab were quoted as saying "We saw how Clive got rich making computers, so we decided to have a go ourselves". This wasn't to be: at least with the Jupiter Ace.

Standard specifications included 3K of RAM and 8K of ROM, but there was one major difference which set it apart from every home computer before or since. Whereas all the other computers came with the programming language BASIC built into the computer's COM, the Jupiter Ace used FORTH .

Why should it have made it?

The Ace was fast. BASIC programs on other computers of the day were incredibly slow, but the alternative – machine code – was a black art in many respects.

FORTH on the other hand was very fast, and much more memory efficient. FORTH combined the low-level aspects of C with simple structured programming techniques and did it all in a tiny amount of memory. Numbers were passed to functions using a Reverse Polish Notation stack, in itself a remarkable concept for any programmer reared on REM statements and GOTOs.

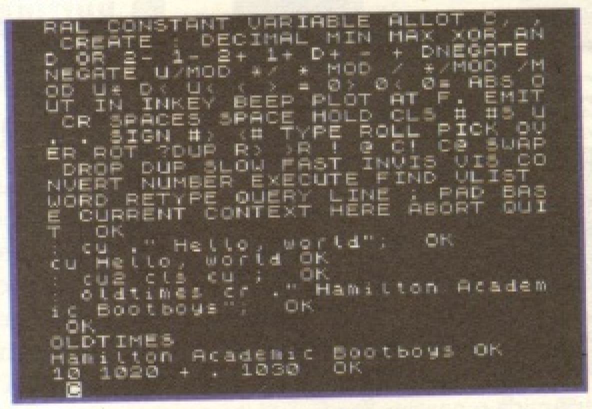
The implementation of FORTH was exceptional too. Originally a language designed for controlling radio telescopes, no one had imagined it was an interactive system until Jupiter Cantab came out with the Ace. The little "OK" message



▲ Inspired by Sir Clive's ZX81 success, Altwasser and Vickers had a crack at going it alone with the familiar looking Ace.



▲ Like a ZX81 in negative form, the Jupiter Ace found itself caught between the two stools of Sinclair's popular machines.



▲ Go FORTH and program above and beyond the power of BASIC. Alas the Ace's monochrome graphics couldn't hold their own in the face of colour competition from the ZX Spectrum.

at the bottom of the black screen always makes me nostalgic for the many hours I spent defining new words and building up programs block by block, before trusting them to a cassette tape.

Although the Ace had black and white graphics only, the screen was character mapped: each 8 by 8 pixel block on the screen could be written in one operation. It also had user-programmable characters, and the end result was an often misquoted 256 by 192 display that was perfect for writing games. I wrote dozens of games using a combination of FORTH and machine code, and they ran faster and more smoothly than anything seen on the Spectrum.

Why didn't it make it?

The Spectrum eventually appeared in big numbers, and blew the Jupiter Ace away. Rich kids had their mummies buy them BBC computers which were even better. The Ace was built incredibly cheaply, and it showed. The case was thin white plastic held close with plastic rivets.

The keyboard was an extension of the main computer PCB, with tracks being shorted by conductive pads on the rubber keyboard. Each key worked for about three months, and then a new keyboard had to be bought (or even made, by gluing conductive foil under the keys).

Even the hardware design itself was flaky, with multiple addresses accessing the same memory locations with differing results, and the madness of reorganising the expansion port at the rear. By altering the port slightly, a generation of cast-off ZX81 peripherals could have been plugged straight in: instead Ace owners had to buy special 16K RAM packs.

In the end, the cheapness of design, the use of FORTH, the lack of colour and any possibility of games software spelled the end for the Ace. The market was becoming flooded with cheap, colour home computers, and a 3K black and white, alien device didn't stand a chance. The Spectrum frenzy took hold, and the rest is history.

Where is it now?

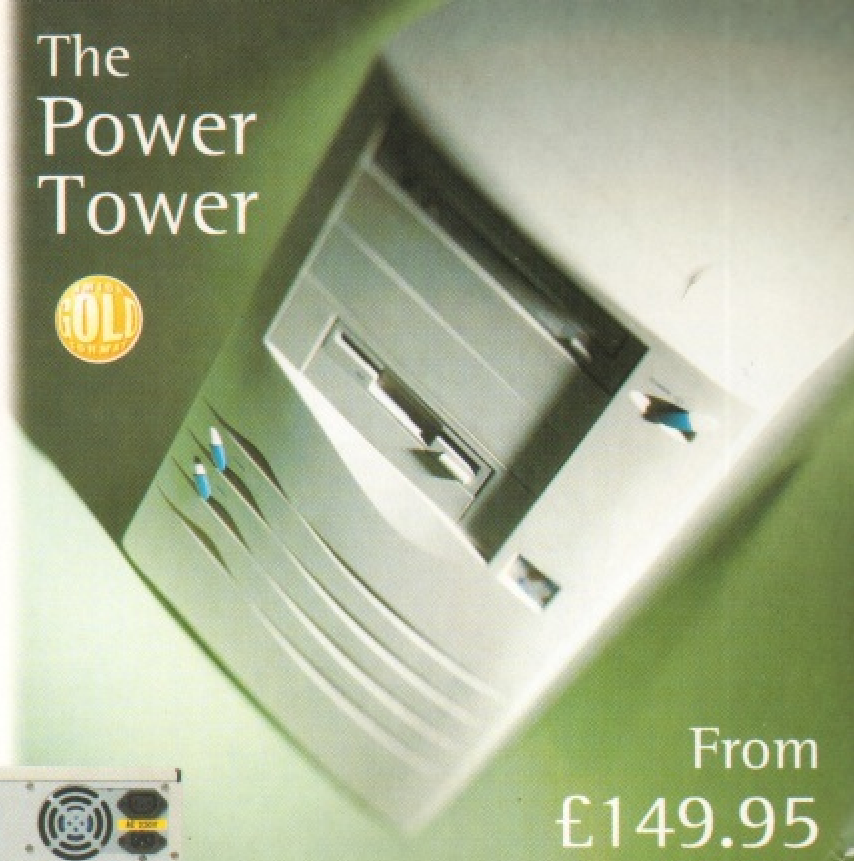
In 1994, Jupiter Cantab went bust and the Jupiter Ace was bought by Boldfield Computing, who continued to try and sell it for a year or so. After that it just vanished: the last I heard from Boldfield was a mailshot offering to auction off the original Jupiter Ace ROM Source code for several thousand pounds.

I don't regret buying the Ace. Learning FORTH made me a better computer programmer. I certainly picked up languages such as C a lot faster than those versed in the linear and non-structured BASICs of the day. I also learnt how business ventures can let you down, when a company which had promised to sell my Ace games went bankrupt.

By the time the Ace was dead and buried, I had moved onto the Amstrad CPC with a working knowledge of Z80 Assembler and a sense of disbelief that a keyboard could really work with keys which weren't made of rubber. There is a FAQ on the Ace at **http://users.aol.com/autism uk/ace/faq.htm**, with links to an Emulator running under MSDOS. I hope very much to find some old tapes in my roof space and get my old games running again! ■

John Kennedy

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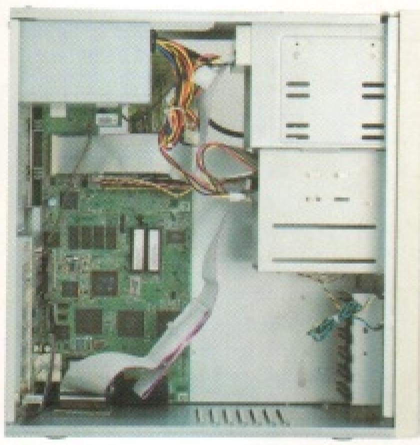
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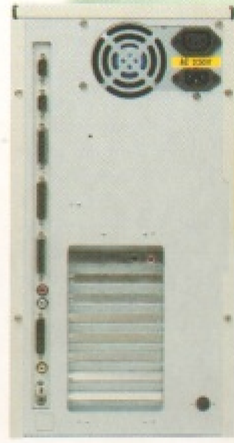
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